

**Designed and Emerging Affordances in Tutor-Learner
Multimodal Interactions via Videoconferencing for Second
Language Learning and Teaching
An Activity Theoretical Approach**

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Abbreviations

AT: Activity Theory

CEFR: Common European Framework of Reference

CHAT: Cultural Historical Activity Theory

CIC: Classroom Interaction Competence

CMC: Computer-Mediated Communication

DCU: Dublin City University

FL: Foreign Language

FLE: *Français Langue Etrangère* (French as foreign language)

FOS: *Français à Objectifs Spécifiques* (French for specific purposes)

IH: Interaction Hypothesis

I-R-F: Initiation-Response-Feedback

ISMAEL: *InteractionS et Multimodalité dans l'Apprentissage et l'Enseignement des Langues*
(Interaction and Multimodality in Language Learning)

LCI: Learner Computer Interaction

LETEC: Learning and Teaching Corpus

L2: Second/Foreign Language

SCMCL: Synchronous Computer-Mediated Communication for Language learning

SCT: Sociocultural theory

SLA: Second Language Acquisition

VC: Videoconferencing

ZPD: Zone of Proximal Development

S1: Session 1; **S2:** Session 2, **S3:** Session 3; **S4:** Session 4; **S5:** Session 5; **S6:** Session 6

TA: Technological affordances

I&CA: Information and Communication Affordances

T&TA: Temporal and Traceability Affordances

N&SA: Navigation and Spatial Affordances

Adele_{TR}: The subscript _{TR} indicates that Adele is a tutor. This convention is followed for all the tutors.

Catriona_{TE}: The subscript _{TE} indicates that Catriona is a tutee. This convention is followed for all the tutees.

List of conference publications and presentations

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Dey-Plissonneau, A., & Blin, F. (2016). Emerging Affordances in Telecollaborative Multimodal Interactions. In S. Jager & M. Kurek (Eds), *New directions in telecollaborative research and practice: selected papers from the second conference on telecollaboration in higher education* (pp. 1-8). Dublin: Research-publishing.net.

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Abstract

Aparajita Dey-Plissonneau. Designed and Emerging Affordances in Tutor-Learner Multimodal Interactions via Videoconferencing for Second Language Learning and Teaching: An Activity Theoretical Approach

Videoconferencing for L2 learning affords the unique possibility of online synchronous interaction with L2 expert speakers using web-camera, microphone and text chat; pin marking students' errors on the oral recordings; generating online feedback, etc. However, distance learning mediated by technology also presents inherent complexities due to multiple spaces, timescales, cultures and norms that are different from a classroom environment. This makes the study of affordances important to inform videoconference embedded L2 pedagogy.

An affordance designates an action possibility, positive or negative, that is offered by an object or environment to an actor in the environment. Few studies have analysed the emergence and realisation of affordances in learning environments with substantial socio-cultural, pedagogical and technological components. Drawing on Cultural Historical Activity Theory, this thesis investigates the emergence and realisation of linguistic, pedagogical, technological and socio-cultural affordances in tutor-tutee multimodal interactions via videoconferencing.

Master's students (teacher-trainees) of French as a foreign language from a French University interacted online via videoconferencing with undergraduate Business students learning French at an Irish University over a period of 6 weeks. The tutor-tutee online interactions generated a multimodal corpus that provided the data for this activity-theoretical study. Activity systems at the macro, meso and micro levels were modelled, and the designed and emerging affordances were identified. Furthermore, new actions emerged to overcome manifestations of contradictions at the macro inter-institutional interaction level and at the micro level of moment-to-moment tutor-tutee interactions.

The findings reveal that the design of pedagogical and technological tools, institutional norms and the division of labour within and between institutions triggered multi-level intra and inter-systemic contradictions. These were resolved by the creation of novel mediating tools and models as well as more learner-centred pedagogical interactions. Consequently, a taxonomy of technological, pedagogical and social affordances is suggested to help inform videoconference embedded L2 pedagogical design and teacher training.

Chapter 1 Introduction

“Change is the end result of all true learning” (Leo Buscaglia, writer).

1.1 Prologue

As a foreign language (FL) teacher for eight years in the French National Education system, I have received training to implement the communicative approach. Coined by Savignon (1983), communicative language teaching promotes an interactive approach that fosters the development of language competences in social use of language. The principal language skills, namely aural comprehension, reading comprehension, oral production, written production and oral interaction are taught by engaging learners to communicate real meaning. Hence, I introduced real-life situations through task-based projects and inter-disciplinary collaborations to facilitate FL use. While the first four receptive and productive skills could be worked upon both in class and at home, my pupils in the French Priority Education Zone (ZEP) context with low social mixing and privileges hardly found any opportunities to practice spoken interaction outside the classroom. In class, pupil-teacher interaction met with other challenges, such as large pupil numbers, brief class time with the teacher and shy or unenthusiastic teenagers reluctant to speak in front of the whole class. Peer-to-peer interaction alleviated some of these problems, but it came with its own set of challenges, such as peers with different proficiency levels, the lack of expert feedback and mainly, an artificially induced interaction in L2 interlanguage that was far from a real-life communicative situation.

Inter-institutional project collaborations via Etwinning allowed my pupils to exchange virtually with native speakers and other learners of the FL, albeit through the written mode. The pupils were themselves acutely aware of their inability to interact freely in the spoken language, especially during school trips to the partner countries for linguistic enhancement. Pupils clearly needed more practice with oral interaction. Oral exchanges with native speakers and learners from partner countries via Flashmeeting was introduced during class hours. The pupils' enthusiasm to connect and communicate with native speakers online was visibly undeniable. However, the full class short presentations and question-answer format between pupils remained demonstrative and shallow and failed to initiate interaction practice *per se*. Moreover, time constraints, curriculum pressure, poor internet connectivity and a lack of sound pedagogical planning to integrate these sessions constrained my fledgling efforts.

1.2 ISMAEL research project and corpus

When I joined Dublin City University (DCU) as a foreign language (FL) teacher, I was presented with the opportunity to study students' L2 interactions with expert speakers as mediated by videoconferencing (VC). This study was part of an inter-establishment VC project that had been undertaken in September 2013 by two project leaders Professor Nicolas Guichon and Professor Françoise Blin from *Université de Lyon 2*, France and Dublin City University (DCU), Ireland, respectively. This research project on Interaction and Multimodality in Language Learning, named ISMAEL (*InteractionS et Multimodalité dans l'Apprentissage et l'Enseignement des Langues*) led to the creation of the ISMAEL corpus (described fully in Section 4.1.3) to fulfil two objectives:

1. to facilitate the sharing and dissemination of the corpus among the CALL research community, with a view to contribute to further research as well as to in-service and pre-service teacher training;
2. to conduct multiple analysis of the interactions with a view to investigate three aspects of asymmetrical videoconferencing and improve pedagogical design for synchronous online language teaching and learning, as summarised below. For full description, see Appendix (Appendix A2):
 - The affordances and constraints that were designed and those that emerged during the tutor-tutee online interactions;
 - The impact of multimodal feedback on second language development and on learning behaviours in online environments;
 - The use by online teachers and learners, of a broad range of multimodal resources, including gestures and paralinguistic cues.

When I commenced this doctoral research as part of the DCU research team, the VC interactions between the DCU students (Business undergraduates) and University of Lyon teacher-trainees (Master's students teaching French as a foreign language) had already taken place and the construction of the ISMAEL corpus, a LEarning and TEaching Corpus (LETEC) was already well underway (see Section 4.1.3, p. 70). It was being created under the expert supervision of the project leaders and other assisting scholars aided by the Cellule Corpus Complexes team from the ICAR research laboratory and master's students in the University of Lyon as well as Doctoral students from both universities. The online interactions and the associated data comprising the most significant portion of the ISMAEL corpus and also for this study, were generated by the VC platform Visu. Visu was itself the product of an inter-institutional collaborative project

(Bétrancourt, Guichon, & Prié, 2011; Guichon, Bétrancourt, & Prié, 2012) but the platform is now dysfunctional due to lack of funding.

As part of the research team, I have also contributed to enriching the corpus by synchronising video, audio and text, transcribing and annotating two forty-five-minute tutor-tutee online interactions, transcribing eight student VoiceThread productions comprising their post-project (primarily oral) reflections, and one expert speaker/tutor's interview. For this thesis, a sub-part of the ISMAEL corpus that comprised triadic interactions (one tutor and two tutees) was used. This choice was motivated by the fact that most of the studies conducted within the ISMAEL project had already focused on dyadic exchanges with the exception of a study conducted by Dejean & Sarré (2017). The latter study's micro analysis of the visual mode suggests that triadic exchanges tend to take place as alternating tutor-tutee dialogue instead of a triologue, resulting in disengagement for the onlooking student while the other one participates with the tutor. This also emerged as a recurrent challenge voiced by tutors, who interacted with two students simultaneously as a triad as compared to the other tutor-tutee dyadic interactions in the corpus, thus, calling for further scrutiny.

1.3 Research background

VC for language learning and teaching purposes allow distant users (learner-learner or tutor-learner) to interact with native/expert speakers of the language and in this process practise and build their meaning-making skills and knowledge in foreign language through the social activity of communication, collaborative activity and interaction. VC facilitates communicative activities through authentic interactions in an immersive environment that potentially supports the L2 learning objectives listed by the Common European Framework of Reference for languages (CEFR): “understanding a native speaker interlocutor”, “conversation”, “informal discussion”, “formal discussion (meetings)”, “goal-oriented co-operation”, “obtaining goods and services”, “information exchange”, “interviewing & being interviewed” (“Council of Europe Language Policy Portal,” 2011). A significant body of studies have explored the various interactional possibilities in multimodal asymmetrical (tutor-learner) VC for L2 learning and teaching (Eneau & Poyet, 2009; Guichon, 2010; Guichon & Nicolaev, 2009; Hampel & Hauck, 2006; Jauregi & Bañados, 2008). Nevertheless, there is a dearth of studies that explore the relationship between the technological, linguistic and social affordances as well as the systemic relationship between the micro level interaction design and the macro level educational design.

1.3.1 Rationale for engaging in this research

My novice efforts to encourage L2 interaction for secondary level students in class in France seemed to find a response in the VC-based ISMAEL project in DCU. This research, therefore, fulfils those ‘personal’ goals that have already been discussed in the prologue. Its ‘intellectual’ (of understanding some questions not addressed by previous research) and ‘practical’ goals (of deriving principles for inter-establishment asymmetrical VC interactions for L2 learning and teaching) (Maxwell, 2013) identifies gaps in the review of the literature on asymmetrical VC interactions in Chapter 2 (Section 2.3) that are enumerated as follows:

1. A lack of clarity on ‘action possibilities and constraints’ or the concept of ‘affordance’ as reflected in certain studies that do not necessarily state the ontological and epistemological basis of their understanding of affordances in an explicit manner (Blin, 2016a; Bonderup Dohn, 2009);
2. The need to understand the relationship between the micro, meso and macro levels of such complex technology-mediated distant learning environments and their inherent challenges, as this aspect was not taken into account in the Lyon-based studies that focused mainly on micro level analyses of the interactions (Blin, 2017);
3. A lack of focus on emergent tutee-led interactions and perspectives in the literature as they interact with the tutors via the environment’s designed tools, as part of an ecological approach using cultural historical activity theory (CHAT), contrary to the current literature that focuses mainly on tutor perspectives and moment-to-moment interactions, using mainly conversation analysis (CA) and discourse analysis (DA) (see Guichon & Tellier, 2017).

Within the asymmetrical VC literature for L2 learning and teaching, the studies undertaken by the University of Lyon as part of the ISMAEL project, focused principally on micro level phenomena, such as expressions, gestures, movements etc. and their influence on online interactions, in terms of lexical explanations, corrective feedback, tutor-tutee interactions, management of technical failures and other tutor competencies (Guichon & Tellier, 2017; Holt, 2018; Vidal, 2018). Blin (2017) notes that most of these studies are micro level studies following conversation and discourse analysis approaches, focusing on semio-pedagogical and techno-pedagogical competencies necessary for online tutors. She further notes that a more macro level view of the dynamics of the interacting tutor and tutee systems is missing. Consequently, a reconceptualisation of language, language learning and language teaching is called for in VC-mediated learning environments that involves pedagogical and technological designers, teachers and learners, as they interact online within the contextual constraints of curriculum design, tool

design, pedagogical design and semio-pedagogical competencies for this type of pedagogy, mediated by distance and technology linking different spatial and time scales

This study, on the DCU side, undertakes the study of affordances and the relationship between the micro and macro levels of the learning ecology, thus, addressing the gap referred to by Blin (2017). This is done by exploring the link between the online moment-to-moment interactions and the changing weekly meso level session plans and the macro level institutional learning objectives and curriculum constraints for both the expert/tutor and student/tutee interacting systems, thus adopting an ecological perspective. This thesis also aims to formulate propositions to inform learner and teacher training in the use of VC for L2 learning. This defines the intellectual and practical goals (Maxwell, 2013) of the thesis.

1.3.2 Ecological CALL and affordances

An ecological approach studies organisms in relation to their environmental context. Bronfenbrenner's (1979) ecological systems theory posits that the individual's activities are influenced by the social ecosystem (family, school, classroom) that surrounds him/her in unpredictable and uncontrollable ways. This echoes Larsen-Freeman's (1997) notion of chaos or complexity theory wherein a complex dynamic order emerges as a result of all the movement that the individual is set in. In ecological research, analysis of one scale always needs to be conducted in the light of one scale above and one below (Lemke, 2000). These are viewed as the macro, meso and micro levels of activity observation. This results in the emergence of action possibilities for the active individual in the setting. Learning emerges when and if the individual picks up these action possibilities and enacts them resulting in some sort of transformation.

Ecological linguistics studies language and language learning as areas of activity where learners carry out activities through agentic acts of various kinds in ecological systems or ecosystems. It does not view language learning in terms of language acquisition as an object comprising words, sentences and rules, but rather on researching, practicing and conceptualising language learning as manifestations of emergent relations between thought, action, constraints, roles and relations (Van Lier, 2004a). These relations depend not just on the 'action possibilities', both positive and negative, afforded by the characteristic features of the tool or the environment but also on the users' 'perception' and 'action capabilities' or user agency. Therefore, the relationship between users' perceptions of action possibilities i.e. affordances (Gibson, 1979), is at the core of the learning process and this study's research agenda. As Blin (2016a) asserts, the computer-assisted language learning (CALL) community is yet to engage in in-depth discussions on affordances and its usefulness for CALL research and design.

The concept of affordances was introduced into Human Computer Interactions (HCI) to inform usability and usefulness of technological systems. It has gained popularity among educational technologists and CALL researchers from the user experience angle and has also given way to diverse and sometimes misleading interpretations in the CALL literature (Blin, 2016a). In line with Blin's (2016a) understanding of nested CALL affordances, this study is underpinned by the view that CALL environments are not just about technological affordances, but rather the interplay between technology, language, social and educational affordances (Kirschner, 2002; Lee, 2009; Van Lier, 2008).

In the ecological perspective, emergence is the reorganisation of simple elements into a more complex system. The original Gibsonian affordances have been adapted to include sociocultural complexities, signs and symbols that influence the nature of tool-handling in the post-cognitivist (Kaptelinin & Nardi, 2012) understanding of affordances. In ecological CALL, users' perceptions of action possibilities afforded by the tool or the environment (such as webcam, text chat, interaction type, etc.) are at the core of the learning process. Many studies have looked into users' multimodal (using multiple modes) actions in VC interactions (Guichon & Tellier, 2017; Satar & Wigham, 2017). Affordances are viewed at the technological operation or linguistic action level here. However, there is limited research to date that investigates affordances at the activity or pedagogical design level and the relation between micro-level operations and actions and macro-level activity in asymmetrical (tutor-tutee) VC for L2 learning. Therefore, this thesis proposes an activity theoretical perspective to underpin the understanding of affordances in VC-mediated L2 environments with a view to inform language and technology use as well as curriculum and learning system design.

1.3.3 Cultural Historical Activity Theory (CHAT) and affordances

Affordance and activity theory are both derived from an ecological perspective of human learning and development. Both reject the Cartesian mind-body dualism held in traditional psychology that has long constrained a holistic view of development. Rooted in the belief that individual psychological, collective social and environmental contextual are all interconnected from a learning viewpoint, the two theories offer conceptual tools that focus on transformative 'change' across spatial and temporal zones. Current notions of activity theory extend the ideas of Vygotsky's sociocultural theory (SCT) to the present day needs and contexts. Leontyev's (1978) and Engeström's (1987) activity theory provide a hierarchical (macro, meso, micro) and well-articulated framework (connecting individual action types into an observable whole) that accounts for language, semiosis, activity, affordances and critical action. They share the basic idea that perception is connected with action. According to this view, linguistic affordance, therefore, ties perception to activity and critical action through the use of language and other semiotic artefacts.

Therefore, tool design, interaction design and curriculum design are inter-related in asymmetrical (learner-tutor) settings as well as symmetrical (learner-learner) L2 learning environments via VC, and action-reflection cycles on the enactment of these designs would facilitate the perception of positive and negative pedagogico-socio-linguistic affordances. This can in turn help understand the success or failure of such learning environments.

Cultural-historical activity theory (CHAT) offers a holistic description and understanding of computer-mediated language learning activity. It views activity as a manifestation of human psychology, analysing it in a wider social and cultural context. CHAT's analytical tools allow to investigate both the VC platform and language use as mediational tools for language learning. This thesis, therefore, proposes to study the affordances that are designed in the learning environment and those that emerge as a result of the participants' perceptions and simple and critical actions. CHAT's epistemological lens of activity, action and operation coupled with manifestations of contradictions, serve as entry points to explore micro, meso and macro level interactions in terms of language use, technology use and the enactment of designed language learning activities and their transformation.

1.4 Scope of the thesis

This study is part and parcel of the Dublin-Lyon inter-institutional VC project, called the ISMAEL project and is very much immersed in the research rationale that inspired the creation of the ISMAEL corpus. This study's research questions are framed in a way so as to directly achieve the practical and intellectual goals identified as part of the ISMAEL research agenda as already discussed above. With cultural-historical activity theory (CHAT) as the main epistemological framework, this qualitative study identifies the designed affordances or action possibilities mediated by the VC environment and its technological and pedagogical tools, and the linguistic actions that emerge either as individual actions or as a consequence of collective reflection. Finally, the participants' perception of breakdowns and tensions in the learning system and consequent resolutions may trigger systemic transformation or change. In a learning activity, change is synonymous with new conceptual formations (Vygotsky, 1978) for learners and the learning system.

1.4.1 Research design and related issues:

Studies investigating instructional uses of conversation/classroom interaction for L2 education, within the sociocultural paradigm, tend to largely focus on microanalyses of participant interactions and relations (Blin, 2017; Guichon & Tellier, 2017). Although of significant value,

they do not offer an understanding of the dynamics between the micro and macro levels of interaction. Unlike the studies already conducted in asymmetrical VC, this study does not focus on an isolated linguistic phenomenon but rather attempts to offer an ecological perspective of the dynamics of the interacting learning system as it undergoes change. Change in the activity is synonymous with new action possibilities or emerging affordances, which in turn implies learning at the collective and individual levels. This ontological understanding leads to the following research questions that aim to address the study's 'practical' and 'intellectual' goals (Maxwell, 2013):

Research Question 1: What are the designed technological, pedagogical and linguistic affordances in asymmetrical VC for L2 learning and teaching? What are the factors promoting or hindering their realisation?

Research Question 2: What new affordances emerge during tutor-learner and learner-learner interactions? What are the factors promoting or hindering their emergence and realisation?

Research Question 3: What are the implications of the emerging affordances in synchronous inter-institutional videoconferencing for technological and pedagogical design, and L2 learning and teacher training?

The aforementioned research questions reflect an interest in capturing the emergence of affordances or user-environment interactions specific to the inter-institutional asymmetrical videoconference for L2 (French) learning and teaching development. User-environment interactions in such a pedagogical scenario involves user-user interactions mediated by cultural and semiotic artefacts and tools. Technology, task, language, along with a horde of non-verbal signs¹ operate together in meaning-making processes. Both tutors and tutees perceive technological and linguistic affordances that trigger the enactment of semiotic actions by them. How these mediating factors influence the human behaviour can be established by looking at the already designed artefacts integrated in the environments as designed operational affordances (these are based on certain established understandings of user needs and objects) and the ensuing transformations of the artefacts and tools as users innovate new uses and/or face situated systemic disturbances and tensions. This understanding of transformational activity, missing in the literature, guides this thesis's methodological stance. It also premises the choice of the term 'interaction'. Communication denotes the act of an exchange of information whereas inter-action

¹ Please note that paralinguistic elements have not been analysed in this thesis.

denotes the process whereby the action of one or more people influences the action of others creating new opportunities/possibilities for action. The tool-user and user-user exchanges in this study are therefore termed as interactional exchanges, from a CHAT perspective.

This study investigating the action possibilities and constraints at different levels of the VC-mediated learning environment came hand in hand with the question of epistemological tools and methodological considerations. The mainly conversation and discourse analysis-based methods of investigation prevalent in the literature facilitate an analysis of mainly intersubjective relations. This study proposes to analyse not only the moment-to-moment interactions at the micro level but it also proposes to observe the changes that take place at the meso level, from one session to another, in response to the breakdowns and constraints perceived by the different subjects (tutors, tutees, their respective teachers) as the distant systems interact with one another. This also provides the basis for macro level principles in asymmetrical VC-based projects. Hence, this study proposes a direct observation of the actual online interactions in the VC project and its neighbouring activities as well as the participants' perceptions of the interactions at different micro, meso and macro temporal levels of the environment.

In terms of contributions, a reconceptualisation of language, language learning and language teaching as perception and enactment of action possibilities or affordances is offered in the context of asymmetrical VC-mediated learning environments, in this study. It involves pedagogical and technological designs, teachers, tutors and learners, and their tool-mediated interactions with each other at the micro, meso and macro temporal levels. The study further proposes an understanding of the contextual constraints of curriculum design, tool design, pedagogical design and specific semio-pedagogical competencies for interactions in such distance and technology-mediated learning environments, viewed as complex interacting systems.

Furthermore, even though Visu has ceased to exist, its language learning and teaching specific functionalities, such as online error markers and offline reviewing of markers to prepare and share multimodal corrective feedback, are currently not available even in state-of-the-art VC platforms. This study could act as a springboard for future designs for VC platforms. An important contribution of the thesis comprises defining technological affordances that involve creating multimodal sessions that facilitate multimodal pedagogical interactions with tasks, multimedia, images/documents, online use of text chat and audio-visual tools such as the webcam, resizing the different onscreen spaces, marking of errors, text chat, reviewing traces of interactions, offering multimodal feedback, recording oneself, pausing, etc. These are also affordances that allow multimodal interactions both online and offline.

In terms of findings, this thesis argues that careful planning of asynchronous communication can substantially improve the quality of the synchronous interactions. The asynchronous communication can vary from informal exchange of song lists to more formal instructions for tutees to help them come prepared for the fast-paced synchronous interactions. A flipped approach is identified as a beneficial tool to help tutees participate in a more informed interaction inducing deep reflexive responses. Furthermore, a tutee-initiated flipped approach is suggested where the tutee shares a document of interest prior to the session in order to engage in more complex interactions that may benefit the tutee with his/her main module learning objectives. Some learners, contrary to what tutors think, appreciated a repetitive character for the interaction tasks. Such repetitive tasks would, in fact, help low proficiency learners gain more confidence in oral interaction rather than setting up complex tasks for them that may lead to interaction and confidence breakdown. This thesis also focuses on the manifestations of contradictions and interaction breakdowns in this learning ecology. These are identified as project level disturbances that arise due to lack of clarity regarding the distant institution's objectives, mismatch between the session designs, the specific nature of triadic interactions, and tool design-related constraints that interfere with pedagogical and linguistic action possibilities.

Ethical considerations for the ISMAEL corpus and for this study: The ISMAEL VC project itself took place in the course of the first semester of the 2013-2014 academic year. The preparation phase involved the conception of the research design by the two project leaders and its execution by a research team. This also involved data extraction, synchronisation, anonymisation and transcription. The data thus gathered was compiled together to form the ISMAEL corpus. It took two years till 2015 to prepare the ISMAEL corpus after obtaining clearance from both the institutions' respective ethics boards (more details in Chapter 5, section 5.2.2 and the evidence of ethical clearance provided from Appendix A1 to Appendix A5) so that it could be shared and used by other researchers according to a Material Transfer Agreement adapted from the CNRS model. The participants for the corpus were chosen based on their consent to participate in the research project. A request for ethical approval to use the ISMAEL corpus for this research study was cleared by both institutions. The different data sets that composed the ISMAEL corpus will be described in greater detail in Chapter 5. Here, it suffices to point out that the selected data mainly consists of online synchronous interactions, asynchronous communication and offline participant reflections and interviews.

The main bulk of the data that was used to create the corpus had already been gathered, synchronized, anonymized and transcribed when I joined the research team. Working with an already established corpus, from a research perspective, has its advantages and disadvantages. This study benefited a great deal from the joint expertise and exchanges with other researchers

that made working on the project an extremely enriching experience but a few challenges also appeared.

1.4.2 Limitations and Challenges of the study

Working within the material constraints of an already established corpus proved to be one of the biggest challenges for this study, as explicated below:

1. **Lack of lived experience of the ISMAEL project:** Although the fact that I joined the ISMAEL team at a later stage allowed me to distance myself from the actual context and participants and have a neutral eye on the events and disturbances, it took me a lot of time to explore and understand the corpus, the richness of its component parts and how the different elements could be stitched together to address this study's research agenda. It also required extensive concertation with the corpus creators to gain familiarity with the corpus.
2. **Disadvantage of working with secondary data:** A challenge I encountered while working with interview data that I had not conducted myself was the interviewer's interpretative filter that tended to guide the interviews. Interviews conducted by other researchers provided rich data in response to the team's specific research questions but not specifically to mine. This was inevitable as a significant number of actively involved Lyon researchers were deeply involved with the data collection and corpus creation process. They were driven by their own set of personal, practical and intellectual goals. I overcame this challenge by conducting interviews with participants during future instantiations of the VC project that allowed me to gain insight into some inherent problems of this learning environment, even though they have not been included in this study.
3. **Lack of dynamic screen captures of tutors' and tutees' screens from the online interactions:** Among all the data sets, the trickiest part in the ISMAEL corpus creation was capturing and synchronising the video recordings of online interactions. Holt (2018) explains in his thesis, how tutors' and tutees' video, sound as well as the error markers, documents, instructions and text chat exchanges were recorded using a dynamic data capture system (see Section 4.3.1, p. 80). I have synchronised video data sets too. However, the system did not capture the participants' computer screen activity, thus making it difficult to gauge what was actually happening on the tutors' and tutees' computer screens, from a user-tool interaction perspective. I had to rely on the online oral

and textual exchanges to deduce the enactment of a few designed technological functions by the users.

4. **Finally, this study explores multimodal interactions but at the same time does not delve into micro level expressions, gestures and body movements.** A deliberate decision motivates this methodological choice. A significant amount of research has already been conducted on gestures and paralinguistic cues using the ISMAEL corpus: Guichon & Cohen (2016); Holt (2018); Satar & Wigham (2017) to name a few. So, this aspect of multimodality has already been dealt with quite extensively by the researchers using this corpus. Additionally, from a micro-meso-macro level inter-relationship investigation, certain choices had to be made regarding the granularity of the different levels of analysis. This study, therefore, chose to focus mainly on those micro level interactive aspects that were dynamically influenced by the macro level context.

Apart from the limitations and challenges mentioned above, the extraction, synchronization and transcription of audio-visual data sets are notoriously infamous for being extremely time-consuming and presenting significant challenges for researchers. In the ISMAEL context, this challenge in producing large volumes of transcribed multimodal data was eventually tackled in creative and collaborative ways by the researchers, as discussed in more detail in Chapters 4 and 5.

1.5 Thesis outline

This thesis comprises eight chapters. Chapter 2 begins by tracing the theoretical understandings of face-to-face classroom interaction through the cognitive and sociocultural theory lenses and their implications in computer-mediated communication (CMC) interaction research. The chapter then proposes a review of VC's technological affordances for multimodal online interactions for language learning and teaching. The preoccupations of research studies investigating multimodal affordances in asymmetrical VC interactions for language learning and teaching are explored with a view to identify gaps in the literature.

Chapter 3 proposes to explore the combined potential of two theoretical standpoints to address the gaps observed in the literature. The post-cognitivist understanding of the theory of affordances (Kaptelinin et al., 2003) is underpinned by CHAT's (Engeström, 1987; Leontyev, 1978) epistemological understanding of the relation between (multimodal) activity and (language) learning in asymmetrical VC. Both theories promote an ecological perspective in their understanding of contextual macro influence on meso and micro level action possibilities (Blin,

2016b; Van Lier, 2004a). The chapter defends the suitability of CHAT as theoretical framework to understand and inform affordances in inter-institutional asymmetrical VC interactions for L2 learning.

Chapter 4 presents the epistemological considerations that address the study's research questions. It outlines the creation of a multimodal learning and teaching corpus (LETEC) called the ISMAEL corpus following strict guidelines to defend the methodological soundness and ecological validity of this study. Finally, the epistemological considerations for the subsequent creation of a distinguished corpus and the study's unit of analysis are specified. Within ecological CHAT as the interpretative and epistemological framework, the learning environment is regarded as an intricate ecosystem offering different contextual levels (micro, meso and macro) for analysis. The unit of analysis is the Lyon-Dublin interacting activity system comprising the VC project at the macro level, the weekly sessions of the online interactions at the meso level and moment-to-moment interactions at the micro level. Following CHAT's representation of human activity as mediated action within and in-between activity systems, the technological and pedagogical 'tools', 'rules' to orchestrate different tasks, 'community' participants, horizontal and vertical 'divisions of labour', and the 'object' for each activity system's 'subjects' are modelled (Engeström, 2001).

Chapter 5 explores the operationalisation of CHAT's epistemological tools to identify the activities, actions and operations in the study's specific context. Data sets that allow an observation and analysis of the macro, meso and micro levels of the VC project are selected. The methods and epistemological tools used to implement the data coding using ELAN and Atlas.ti are explicated. Furthermore, their subsequent categorisation into designed and emerging technological and linguistic affordances and systemic tensions are illustrated in an attempt to portray the dynamic inter-relations between the affordances of the environment from a CHAT perspective.

The results of the analysis are presented in two separate findings chapters, 6 and 7. Chapter 6 identifies the designed technological, linguistic and pedagogical affordances in the online instantiations of the VC project. It also traces the changes that emerge as tutor-tutee triads regulate the micro level online interactions to match the meso level changing pedagogical objectives. This chapter explores the designed VC affordances for language learning and their perception and enactment (or not) by participants. It scrutinises the unfolding of the online VC interactions at the meso and micro levels as the principal activity. The interplay between the environment's designed technological affordances and designed linguistic and pedagogical affordances (session plans)

that give way to emergent linguistic, pedagogical and technological action possibilities is discussed.

While Chapter 6 focuses on the changing object or objective changes and the corresponding emerging action possibilities, Chapter 7 focuses on the collective and individual subjective reflections or perceptions of systemic tensions in the environment. The post-session tutor debriefings and post-project tutor and tutee interviews and reflective reports are the main discursive activity that are scrutinised to analyse these systemic tensions. Episodes of breakdowns and lapses from the online interactions are used to triangulate the discursive manifestations of systemic tensions. New affordances emerge as actions that aim to circumvent or resolve these meso and macro level perceptions of tensions.

Finally, Chapter 8 presents the study's conclusions with regard to the research questions. It highlights the study's contribution to research, learning and teaching in the field of designed and emerging affordances in tutor-tutee multimodal interactions via videoconferencing for language learning and teacher training. It ends with the limitations of the study and proposes ideas for future research.

Chapter 2 Videoconferencing in Foreign Language Learning and Teaching: Literature Review

This chapter reviews the literature in synchronous computer-mediated communication for language learning (SCMCL) in order to establish the current trends and approaches in research in this domain with a view to identify the gaps in the understanding of affordances in asymmetrical VC settings. In order to do this, it first explores certain characteristics of face-to-face classroom interaction for language acquisition, learning and development as seen through the interactionist and sociocultural lenses. It then reviews the extension of these theoretical perspectives in the context of computer-mediated communication (CMC), focusing on the notions of technology-mediation, semiotic resources, and multimodality in CMC and VC. The chapter reviews how VC tool functionalities have given way to new action possibilities and pedagogical settings. Establishing the link with the context of this study, VC-mediated interactions and their relevant semiotic resources and technological functionalities for L2 learning are explored. This calls for an understanding of the theory of affordance in HCI and a discussion of its implication on CALL artefact designs and more specifically VC tool functionalities. The chapter then moves on to highlight the relationship between the VC technological affordances and the various CALL affordances, such as linguistic, pedagogical and social affordances that together constitute the tutor-tutee interactions. This is done by exploring VC-based interaction research in non-CALL and CALL educational settings. The most prominent themes in the literature on multimodality in asymmetrical VC interactions are reviewed to identify the historical intellectual tradition that populates the domain of VC-mediated L2 learning and research. Furthermore, this helps to funnel the information and note the gaps in research and identify future research directions that lead to the study's research questions.

2.1 Interaction in second language acquisition, learning and development

The cognitive and sociocultural perspectives on language learning that have extensively been used to research the instructional approach to L2 acquisition, learning and development are the cognitive and sociocultural paradigms. The cognitive paradigm looks at the processes within a learner's mind for language acquisition, whereas, sociocultural perspectives view language learning as mediated through both interpersonal and intrapersonal interactions situated in a social and cultural context.

2.1.1 Theoretical perspectives on understanding L2 classroom interaction

Ellis (1999) specifies that oral human interaction is a fundamental form of human communication. Wagner (1994) views interaction as “reciprocal events that require at least two objects and two actions. Interaction occurs when these objects and events mutually influence each other” (p. 8). Hatch (1970) claims that learners learn the grammar of the language through interaction and this favours acquisition more than learning grammar in order to interact. The above views place interaction at the heart of interpersonal communication and language learning. In fact, the understanding of interpersonal and intrapersonal interaction in the literature have been underpinned by two prominent theories in L2 acquisition and learning that propose different viewpoints and discourses on interaction to the point of being viewed as incommensurable (Ellis, 1999). They are Long’s (1983; 1996) ‘Interaction Hypothesis’ (IH) and the ‘Sociocultural Theory’ (SCT) for L2 learning (Lantolf & Thorne, 2007; Lantolf & Appel, 1994; Lantolf, 2000).

Interaction Hypothesis (IH):

IH draws on early work in ethnomethodology which explored the ways in which native speakers repair breakdowns in communication (e.g. Schegloff, Jefferson, & Sacks, 1977). IH’s stance holds that interpersonal oral interaction with its inherent communication challenges give rise to circumstances that foster the internal processes responsible for interlanguage development as learners engage in negotiating meaning (Long, 1983b; Long, 1996). The IH, therefore, primarily focuses on one particular kind of interaction, i.e. the negotiation of meaning or interactional modifications that involve change to a structure of a pedagogical conversation to either prevent a potential problem of understanding or rectify a prevailing impasse. IH researchers, however, do not make forthright claims to acquisition, asserting that modified interaction can only “set the scene for potential learning” (Gass, Mackey, & Pica, 1998, p. 304). Furthermore, ‘uninterrupted communication’ may also contribute to acquisition even though negotiation caters best to learners’ data needs (Pica, 1996).

Long (1996) argues that ‘interactionally modified input’ is especially beneficial to help learners with linguistic forms that posed difficulty for them. Negative evidence is input that provides “direct or indirect evidence of what is grammatical” (Long, 1996, p. 413). This happens when learners receive feedback on their production. Recasts are a common feature of this type of interaction where learners’ utterances are rephrased while preserving its main meaning, thus allowing learners to make cognitive comparisons of their own productions with grammatically correct input. Gass (1997) contends that recasts do not trigger the permanent restructuring that is needed for acquisition, rather it is only possible after continual feedback that provides a strong impetus or need for change. Mackey and Philp (1998) note other necessary conditions, such as

the learners' ability to process the recast and the learners' willingness to focus on form as well as meaning while engaged in on-going conversations. Krashen (1985) evidences the view that acquisition is input driven while Swain (1985) initiated the notion of output as a source of language acquisition. Swain (1985) emphasises that both comprehensible output and comprehensible input may be required to achieve a certain degree of grammatical and sociolinguistic competence in L2.

The views above focus primarily on 'acquisition' that is expected to occur through some type of 'negotiation of meaning' which involves 'comprehensible' and 'interactionally modified input', while 'noticing the linguistic forms'. 'Negative evidence' allows the 'processing' of the 'noticed forms' provided they lie within the learner's 'processing capacity', and finally it is 'compared' with one's own 'output', thus, involving both interpersonal and intrapersonal interaction. Despite IH's insistence on how negotiation leads to modified input that can potentially promote acquisition, a direct link between input and acquisition has not been established (Ellis, 1991).

Sociocultural theory (SCT):

SCT has challenged IH's view of interaction and its relationship to L2 acquisition. Lantolf (1996) proposes a social view of language learning that elicits the metaphor of 'participation' entailing participant action and agency that takes place in interactions in the outside world rather than inside the head of the learner. SCT does not view L2 learning in terms of input, processing, noticing and output. Derived from Vygotsky (1978) thought, SCT in second language learning stipulates that the transformation of biologically determined mental functions into more complex higher order functions takes place through social interaction. The consciousness that arises in this process harnesses awareness of one's own cognitive abilities and these are materialised externally through self-regulatory actions with the help of particular historically and culturally developed tools. These tools can be semiotic (e.g. codes such as oral or written language, image, etc.), mechanical (e.g. paper or pen), technical (e.g. a computer) or complex participation interaction (Lamy & Hampel, 2007, p. 31) that act as mediators between the individual and the outside world that one wants to communicate with. The key construct in this theory is 'mediation' (Lantolf & Appel, 1994; Lantolf, 2000). 'Development' entails identifying and learning to use the culturally defined tools in order to achieve higher order functions (Ellis, 1999, p. 18). 'Interpersonal interaction' in SCT is an important type of mediation for learning that initiates gradual autonomy and development. Unlike IH, SCT is not so much interested in measuring L2 acquisition, but rather traces the transformative mediation processes in learner action and agency that reflect L2 learning and development.

SCT advocates the ideas of ‘scaffolding’ and ‘co-construction of meaning’, which is the collaborative process of constructing a conversation with the help of experts or peers that enables learners to construct linguistic forms that they would not be able to produce alone. It refers to the social, cognitive and affective support that interactants offer each other. Scaffolding is recurrent in classroom conversations, also called ‘instructional conversation’ (Tharp & Gallimore, 1988). They are said to include some common features of non-formal conversations, such as distributed turn-taking, spontaneity and unpredictability but they also have an instructional intent with view of a pedagogical object, with the general aim of assisting learners with developing L2.

Donato (2000) argues that ‘instructional conversation’ involves a wider range of communicative and cognitive functions than IH’s ‘negotiation sequences’ offering more insightful instance for analysis of scaffolding, that is, how an interlocutor empowers a learner to perform a task that he would not be able to perform alone. For beginner learners, Ellis (1991) asserts that scaffolding occurs during one-on-one interactions with a teacher and that this can promote acquisition. In interactions involving peer scaffolding, it is observed that less proficient learners can aid more proficient ones thus blurring the novice-expert divide (Ohta, 1995). Collaborative activity between learners has been proved to promote problem solving abilities and acquire new linguistic resources (Swain & Lapkin, 1998).

In SCT, language is not only the object of study but is itself a mediational tool to help learners develop cognitively. This is done with the help of private speech that adults activate when faced with a cognitively challenging task. Both social interaction with peers or experts and private speech with oneself constitute interactions that are different (Lantolf & Frawley, 1985). Aljaafreh and Lantolf (1994) trace how tutor scaffolding for advanced learners reduces with time as their self-regulatory mechanisms or autonomy increases. This is because proficient learners rely lesser and lesser on private speech accessing automatized linguistic units (McCafferty, 1994). The nature of tasks is one of several factors that presumably influence learners’ use of private speech. The higher the difficulty in executing the task, the more learners use private speech. Lantolf and Appel (1994) show that learners have more difficulty in recalling an expository text as compared to a narrative text, thus generating more private speech.

Interaction based on SCT emphasises interpretation and understanding of the activity of L2 learning whereas acquisition-based interaction theories focus on acquiring native speaker like proficiency (Kramsch & Vork Steffensen, 2008). A sociocultural perspective proposes viewing L2 learning through interaction and its dynamics within the broader context of institutional and material constraints. Therefore, where IH seems to propose the metaphor ‘learner as computer’ with learning taking place in the mind of the learner, SCT identifies learning with the metaphor

of ‘participation’ that situates acquisition outside in the social world rather than inside the head of the learner (Lantolf, 1996). Unlike the native speaker as L2 model approach, sociocultural studies assert that being confluent is more important to effective communication than being fluent. Similarly, Walsh (2014) suggests that there is a need to teach interactional competence rather than communicative competence.

2.1.2 Interactional competence in the face-to-face classroom

Interactional competence is highly context specific and related very closely to speaker intent and to audience. For example, the interactional resources needed in ordering a coffee are different to those required to participate in a multiparty conversation. In the context of classroom interactions, much more sophisticated interactional resources are required to “successfully compete for the floor, gain and pass turns, attend to what the speaker has said, interrupt, clarify and so on” (Walsh, 2013, p. 48). In this section, the classroom is viewed as a social context in which interaction competencies are developed by imitating the outside social world through tasks designed from a sociocultural perspective and in which the student develops skills through active participation.

Classroom interaction competencies (CIC):

The L2 classroom principally comprising students, a teacher and material resources tends to imitate the external social world through communicative tasks. The verbal and non-verbal interaction taking place in it shapes the context and is shaped by it (Van Lier, 1998, p. 48). Some would even say that the interaction which takes place is the learning, i.e. they are one and the same thing (Van Lier, 1998). It is necessary to know what competent membership of the classroom involves, and to see what learners can do creatively to exploit their competent membership to increase their opportunities for learning.

According to Walsh (2013), classroom interaction competencies (CIC) focus on the ways in which teachers’ and learners’ interactional decisions and subsequent actions enhance learning and learning opportunity. Van Lier (1998) describes classroom interaction as a specific genre of social action comprising rules, such as interactional moves, strategies, sequencing (timing and placement) and resources, such as linguistic, cognitive and social propositions or speech acts. Hence, as opposed to informal settings, classroom interaction is largely orchestrated, specifically designed language use to meet certain pedagogical goals of the moment that are appropriate to learner needs and proficiency levels (Walsh, 2013).

SLA research has chosen to explore particular aspects of discourse in the language classroom, such as, teacher-talk (Gaies, 1977), teacher questions (Long & Sato, 1983), teacher feedback (Lightbown & Spada, 1990), learner participation (Day, 1984) and interactional modifications in

classes held by experienced and inexperienced teachers (Pica & Long, 1986). While these studies are of significant importance, Ellis (1999) argues that it is the holistic factors that centrally govern other more micro aspects of the discourse (p. 220). Furthermore, Van Lier (1998) notes that most of the studies on classroom discourse “focus on specific aspects of the setting with little or no attention paid to the holistic nature of the classroom as a social context” (p. 60). According to Van Lier (1998), classroom research must study not only how classrooms must or should be structured in order to promote learning in optimal ways, but also “why things in classrooms happen the way they do, and in this way expose complex relationships between individual participants, the classroom, and the societal forces that influence it” (p. 80-81).

Task from a sociocultural perspective:

The task is considered the building block of the language classroom as it offers opportunities for structured and meaning-focused interaction (Ellis, 2003; Nunan, 2004). Then the key issue is what opportunities are created for learners to participate by teachers. Participation is of considerable relevance to CIC’s notion of space for learning, defined here as the ways in which teachers not only create opportunities for participation, but increase student engagement at the individual and collective class levels. As Van Lier (1998) reiterates, “teaching does not cause learning, but rather creates (or fails to create) the conditions in which learning can occur” (p. 34). At the micro-interactional level, Walsh (2013) suggests facilitating dialogic interaction with extended learner turns, allowing increased planning time and wait-time, paraphrasing and shaping learner responses (Walsh, 2013, p. 55). Hence, interaction management in which all participants are expected to engage with each other and develop the topic of interaction to the full for some time providing a range of perspectives (Walsh, 2013) is crucial. From a socio-historical perspective, Hall (1995) argues that engagement in interaction is shaped by teachers’ and learners’ previous experience of such interactions and their social identity. By creating a friendly learner space, learners are better able to contribute to the process of co-constructing meanings, something which lies at the very heart of learning through interaction in the sociocultural perspective. Ellis (1999) emphasises learner-control rather than teacher-control of the information that needs to be communicated. Allowing students to divert in order to come up with their own topics is encouraged in the process.

In tasks viewed from the SCT perspective, while learner-controlled discourse may be pre-planned (Ellis, 1999), much of teaching is improvisation (Van Lier, 1991). This echoes Coughlan and Duff’s (1994) distinction between ‘task as workplan’ (i.e. the design for teaching) and ‘task as activity’ (i.e. the design for learning) or the actual language that occurs. This manifests in the form of a wide array of discourse types as a result of learners’ multiple interpretations with the task. As Lantolf and Appel (1994) suggest ‘performance’ depends on the interaction between the

individual and task and not on the inherent qualities of the task itself as claimed by the psycholinguistic tradition (Ellis, 2000). Teachers, therefore, need to adapt the task to learner needs, interests and proficiency levels. Another debate in L2 teaching concerns the choice between two types of tasks: task-supported language teaching (TSLT) and task-based language teaching (TBLT) are two approaches of instructional use of task that focus on form. In both cases, learners are expected to pay attention to form but in TSLT learners are explicitly taught to attend to a language feature whereas in TBLT attention to form occurs incidentally while learners engage in some type of interaction. TSLT favours automatised explicit L2 knowledge and focuses on accuracy. TSLT may be viewed as more useful for basic L2 learning and not for more advanced levels of competence. However, Sheen (2006) reported that there is no proof that shows that TBLT is more effective than TSLT. According to Long (2015), TSLT and TBLT are incompatible as they are derived from different psycholinguistic theories, but according to Ellis (2019), they could be combined in a language learning curriculum depending on the learning context.

Ellis (1999) notes that it might be fruitful to evaluate the learning capacity of the classroom by evaluating the opportunities it provides for learners to take charge of interactions. On the other hand, the communicative approach is based on the fulfilment of tasks to accomplish certain linguistic objectives. Nunan (2004) places tasks on a continuum from activation to rehearsal types. Activation tasks offer learners opportunities to activate their emerging language skills in creative ways, for example, through the production of a semiotic artefact, whilst rehearsal tasks require learners to practice some social event, for example, role plays or mock interviews. The question is how teachers seize these opportunities to encourage learner topicalization.

Student role:

While it is largely the teacher who ‘orchestrates the interaction’, the learner also “has to be able to take cues, observe key signals and manage his own turn-taking in line with what is required by the teacher” (Walsh, 2013, p. 61). In other words, the learner has to demonstrate active agency in the interaction (Breen, 1996). Mehan (1979) points out that effective participation, which in most classrooms involves taking initiative, can occur only when the learners know the rules of classroom discourse. “In order to have topics incorporated into the lesson, students need to introduce new and interesting ideas, not merely comment on the prior course of events” (Mehan, 1979, p. 169). This viewpoint counters the belief that the onus of topic management and development lies with the L2 teacher as student apathy, shyness or anxiety can seriously skew the interaction despite any space-opening initiatives undertaken by teachers.

Walsh (2013) highlights several CIC features that learners could be made aware of, for example, the learner’s ability to answer the teacher’s questions; to ensure that his/her contributions are both

relevant and timely; to show the ability to manage turns and hold the floor; and to relinquish his/her turn at talk and hand over to another learner at the teacher's signal, following interactional etiquette. The learner's appreciation of the precise type and amount of response needed is also important, for example, a question like 'why' almost always requires an extended response. The learner's understanding that the teacher's focus is on eliciting personal experiences and further information rather than focusing on accuracy is equally crucial.

IH and SCT, therefore, draw on different theories that are viewed as incompatible as they have different working methodologies with regard to the instructional use of language and language learning. Their approaches differ in terms of negotiation of meaning vs. co-construction of meaning, teacher-learner interaction as I-R-F (Initiation-Response-Feedback) vs. scaffolding, language acquisition or product-oriented vs. language development or process-oriented and interculturality. However, Ellis (2019) opines in favour of a syllabus that combines the product- and process-based approaches of language teaching. Similarly, Lamy and Hampel (2007) argue that "psycholinguistic and sociocultural dimensions together mutually inform task-based instruction" (p. 70). Furthermore, following Richards and Rodgers' (2001) three level 'Approach-Design-Procedure' process as useful model for task development, Lamy and Hampel (2007) apply it to CMC settings.

2.1.3 From face-to-face to CMC & CALL interaction

Both a cognitivist approach and a sociocultural approach are said to have the potential to inform research and practice in educational computing and CALL (Lamy & Hampel, 2007, p. 19; Levy, 1998, p. 93). The face-to-face classroom interactional precepts and methods to maximise learner-centred learning have largely informed the computer-mediated communication (CMC) pedagogy for language learning and teaching. Mainly conversation analysis (CA) and discourse analysis (DA) based methods have been used to investigate diverse themes in CMC for language learning related to language functions (Payne & Ross, 2005; Sotillo, 2000), communication strategies (Lee, 2000), interculturality (J. A. Belz, 2003; Jauregi & Bañados, 2008), affordances (Simpson, 2005), online teacher training (Dejean-Thircuir, Guichon, & Nicolaev, 2010; Meskill, 2005) and online tasks (Guichon & Nicolaev, 2011), etc.

Ever since its emergence in CALL in the late 1990s, online interaction has triggered a wide array of interests as reflected in research studies (Belz & Thorne, 2006; Dooly & O'Dowd, 2012; Kern & Develotte, 2018; Lamy & Hampel, 2007). Research on online interaction at the beginning of the 21st century mainly focused on comparing online synchronous interaction with face-to-face student interaction using L2 investigating how face-to-face interaction could be replaced or supplemented by online interaction (Dooly & O'Dowd, 2012, p. 18). This evolved into studies

that look into variables that would help improve online teaching. Learner-centred strategies around discussions, collaborative and authentic learning activities are prescribed for CMC environments (Caws & Hamel, 2016). New teacher and student roles and new community rules emerged in the technology-mediated distant learning space. Classroom interactional competence moved further to embrace intercultural interactional competence based on structured online intercultural interaction (Belz, 2003; Möllering & Levy, 2012; O'Dowd, 2003). Belz and Thorne (2006) suggest that virtual access to real members of other cultures added an intercultural turn to foreign language (FL) education. Educators see the online environment offering possibilities of intercultural exchange and authentic communication that would not have been possible in traditional FL classrooms. Mainly sociocultural perspectives have dominated research of this type of online interaction where interaction is seen both as inter- and intra-personal process mediated by language with the object of the interaction itself being language, emphasising strongly the social aspects and contextualisation (sociological and cultural factors) of the language learning process.

Numerous studies have explored the potential use of CMC in collaborative learning (Belz & Thorne, 2006; Lai & Zhao, 2006; Smith, 2003; Sotillo, 2000; Tudini, 2007). Second language development studies in both symmetrical (learner-learner) and asymmetrical (learner-tutor) settings (Belz & Thorne, 2006; Guth & Helm, 2010; O'Dowd, 2013) discuss diverse aspects related to linguistic and intercultural development in telecollaborative settings. Other studies of online interaction have explored linguistic competence (Belz & Kinginger, 2002), intercultural communicative competence (O'Dowd, 2003; Ware, 2005), pedagogical design of online tasks and interactions (Colpaert, 2006; Dooly, 2011; R. Hampel & Stickler, 2012; R. O'Dowd & Ware, 2009) and reasons for intercultural misunderstandings in online interactions (Jauregi & Bañados, 2008; Ware & Kramersch, 2005).

Three types of CMC interactions in pedagogical settings are described by O'Dowd and Dooly (2012): the in-class interaction, the class-to-class interaction, and the class-to-world interaction. Beauvois' (1998) study evidenced that the text-based nature of in-class interactions allows learners time to reflect on their productions. This is evident in interaction using asynchronous tools, such as blogs and forums, for example, that are used for reflective discussion. The bulk of the research studies focusing on in-class contribution to L2 education come from the interactionist perspective and psycholinguistic theories of SLA (Long & Robinson, 1998). These studies look at negotiation of meaning between learners and peer correction (Sotillo, 2000) with the aim to maximise complexity, accuracy and fluency in online task performance (Blake, 2000). On the other hand, the class-to-world interactions are suited to more advanced learners who would be willing to venture out of the safe and reassuring but limited space of the classroom for unrestricted

interaction practice with a larger spectrum of L2 speakers who may sometimes share similar interests, for example online fan fiction communities (Sauro & Sundmark, 2019).

As for inter-class interactions, the emergence of class-matching sites, such as [Etwinning](#) (“eTwinning”), [UNICollaboration](#) (“UNICollaboration”), etc. has facilitated exchange between L2 learners from geographically distant locations. Synchronous oral communication using videoconferencing involving combinations of other media such as e-mail, blogs, forums etc. became popular means of online interaction for semi-authentic intercultural communication with members of other cultures. The FL classroom then provided the space to reflect on and learn from these online exchanges. Another type of inter-establishment learning via videoconferencing involved interactions between trainee teachers of foreign language and language learners (Antoniadou, 2011; Drissi, 2009; Eneau & Poyet, 2009; Gettliffe & Toffoli, 2011; Guichon & Hauck, 2011; Guichon & Nicolaev, 2009; R. Hampel & Stickler, 2012). *Français en première ligne* (FIL) is one such initiative undertaken at the university level that has provided the context and data for this study. Studies in tutor-learner videoconferencing have investigated task-design (R. Hampel, 2006; Wang, 2007), pedagogical interaction (Dejean-Thircuir et al., 2010), methodological framework & pedagogical practices (Codreanu & Develotte, 2010; Guichon, 2013), discourse analysis (C. Develotte, Guichon, & Kern, 2008), online feedback (Guichon, Bétrancourt, & Prié, 2012), social presence (Kirschner, Kreijns, Jochem, & van Buuren, 2004), etc.

It has been argued that synchronous online interaction is considered to be more motivating than in-class exchanges for learners (Tudini, 2003). It promotes increased participation and interaction among students, increasing the opportunities for meaning-making that enhances language learning (Blake, 2000). However, some studies have shown that the quality of VC interaction is greatly reduced by challenges, such as inter-communication delays, overlap in interpersonal interaction, lag between information transmitted and received, management problems and geographical settings (Coventry, 1995). Moreover, the key issues often unique to research in CMC environments are characterised by its virtual, intercultural and multimodal character (Dooly & O’Dowd, 2012).

2.2 Multimodality in CMC and affordances

Semiotic tools, such as board for writing, paper, pen, textbook, etc. used in face-to-face L2 classrooms are replaced by other forms of semiotic resources in technology-mediated interactional settings, such as shared screen, text chat, online documents, etc. Different modes and their various temporal and spatial combinations provide different possibilities for action. This

makes the understanding of multimodal interaction, its possibilities and limitations, very important for their potential to inform the pedagogical design of technology-rich multimodal learning environments.

2.2.1 Semiotic resources, mediation and multimodality for CMC

Language learning in CMC is said to be ‘mediated’ by three principal agents: task, other participants, and technology (Lamy & Hampel, 2007). In technology-mediated contexts, learner-task-other participant(s) interactions are enabled by technology and language mediation. Language is not only the main mediational tool but also the object of language learning. Other participants, technology and task are equally important mediational means and tools for interaction. These mediational tools function as ‘semiotic resources’ defined in the following terms:

“Semiotic resources are the actions, materials and artifacts we use for communicative purposes, whether produced physiologically – for example, with our vocal apparatus, the muscles we use to make facial expressions and gestures – or technologically – for example, with pen and ink, or computer hardware and software – together with the ways in which these resources can be organized” (van Leeuwen, 2004, p. 285).

Language teachers and learners constantly use semiotic resources, such as their voice, body movement, language, writing support, documents and other artefacts. These semiotic resources are represented in textual, aural and visual forms or ‘modes’. The semiotic realization of a mode is defined as ‘modality’. In the context of VC, Guichon & Cohen (2016) give the example of the webcam image as the semiotic manifestation of visual modality for videoconferencing. Kress and Van Leeuwen (2001) note that:

“the use of several semiotic modes in the design of a semiotic product or event, together with the particular way in which these modes are combined – they may for instance reinforce each other [...], fulfil complementary roles [...] or be hierarchically ordered” (p. 20).

In technology-mediated learning, the environment shapes the interaction as users adapt the available tools, such as screen, microphone, text chat, etc. to communicate across different spaces and timescales using different modes (video, audio, text) in different combinations with each other. CMC research is interested in the emergent patterns of such ‘multimodal’ interactions and how they operate simultaneously or differentially, in conjunction or in a competing manner (Hampel, 2006).

Mayer (2005, p. 36) argues in favour of developing metacognitive strategies for coordinating and adjusting limited cognitive resources in technology-mediated learning situations. The cognitive processing of a static mode, such as a written text with illustrations, is different from that of a dynamic or interactive mode, such as videoconferencing, as the latter puts more pressure on learners to assimilate the information from different sources in limited time. A crucial semiotic resource used in the L2 classroom is the task. The degree of complexity of the task could be changed in accordance with the mode of communication (synchronous or asynchronous) and the learners' level of proficiency. Reception of the designed multimodality depends on the participants and their efficacy is measured with regard to the attainment of the linguistic and pedagogical objectives. Users use compensatory strategies for their perceived deficiencies in one modality (e.g., difficulties with typing or anxiety about speaking) by using another mode more frequently (Sauro, 2009). The audio, for example, gives learners little time to reflect and rehearse their statements and can thus generate anxiety, whereas the text chat allows users time to review their contributions (Hampel & Stickler, 2012).

Several scholars regard multimodality as a defining characteristic of VC interactions as VC tools offer diverse semiotic resources, such as mic, webcam, keyboard and other semiotic modes for users, thus, redefining new opportunities for meaning-making and learning (Cohen, 2017; Satar & Wigham, 2017). Hence, facial movements (such as eyebrow movement, smile, gaze direction), head movement such as nodding, positioning of the bust with respect to the screen, gestures with hands or shoulders inside or outside screen, the verbal mode, the written mode via text chat, the document sharing mode are all multimodal semiotic resources used in the process of meaning making. Develotte, Guichon & Kern (2008) examine the influence of multimodality and synchronicity on videoconference-based pedagogical communication. Multimodality (written, oral, visual) is viewed as operating at three types of interactional planes: linguistic, communicational and psycho-affective. Their findings reveal that writing in the form of text chat constitutes the first step of appropriation of the synchronous multimodal communication. Other uses of text chat were noted as a techno-pedagogical tool that afforded the written mode to communicate during technical failures of audio; provide recasts, repetitions and clarification as feedback; reformulate instruction; and help in memorising a new word affording graphic aid.

Hampel & Stickler (2012) identify interactional functions in the use of text chat in social conversations, management of technology, negotiation of meaning (task-related), off-task conversations among students and teacher feedback (R. Hampel & Stickler, 2012, p. 125). The interplay of modes in the emerging interactions either complemented each other, compensated for shortcomings, or competed with one another. However, not all students display the ability to handle the modal density (Norris, 2004) with ease at the same time. Different students show

different preferences and cognitive capacities for the communication modes. Hampel & Stickler (2012, p. 135) conclude that appropriate and explicit training to use multimodal synchronous tools need to be offered to both students and teachers. Similarly, other scholars have pointed out that learning through technology depends critically on learners' access to and use of technology (Kramsch & Thorne, 2002; Lam, 2000; Thorne, 2003). Hence, there is a close relationship between the designed learning environment and human agency or user action and intention. This calls for an exploration of the concept of affordances as applied in human computer interaction (HCI) for the design of multimodal tools in the context of online L2 interactions.

The intrinsic nature of VC interactions is multimodal with the use of the three modes, namely audio, video and text. The literature using the ISMAEL corpus has looked into the various levels of the visual mode, such as gestures, expression and gaze at a micro granular level (Satar & Wigham, 2017; Guichon & Cohen, 2017; Holt, 2018). However, there is a dearth of literature that explores the various interactional possibilities designed in the multimodal environment's pedagogical and technological tools (such as web-cam, microphone, text chat to communicate; common screen space to share images, videos and texts; pin marking of students' errors on the oral recordings; generating individualised multimodal feedback, etc.) and the users' emerging success and failure in interacting with them.

2.2.2 Affordances and HCI

Technological artefacts offer opportunities to users for action that can be described at the level of operational functionalities (like pushing a button or typing on the keyboard). These simple functionalities in turn facilitate more sophisticated social and/or pedagogical actions (like sharing a written message or image on-screen). This transformation of simple operational functionalities into action possibilities loaded with rich complex meaning that serve to fulfil certain user needs drives design principles in human computer interaction (HCI) and engineering design.

“When developing an artifact, designers must first capture and represent user needs. These needs can then be transformed into system requirements or objectives” (Cormier, Olewnik, & Lewis, 2014, p. 259).

Cormier, Olewnik and Lewis (2014), from an engineering design perspective, propose an affordance-based approach/procedure to capture user needs in the early stages of artefact design in order to meet user needs more effectively. However, before we explore the technical aspect of the affordance statement that underpins the analysis of the designed affordances in this study, it is important to familiarise oneself with the notion of affordance.

Humans can perceive objects and their properties, but only since the last century has the humans' capability to directly perceive opportunities for behaviour, or more specifically opportunities for action in their environment, been theorised (Pols, 2011). These are called affordances. The term 'affordance' was originally coined by the perceptual psychologist James Gibson (1979) as part of his interpretation of an ecological approach to visual perception. According to Gibson:

"The affordances of the environment are what it offers the animal, what it provides or furnishes, either for good or ill. [...] I mean by it something that refers to both the environment and the animal in a way that no existing term does. It implies the complementarity of the animal and the environment" (Gibson, 1979, p. 127).

Affordance is a relational property as it depends both on the inherent objective characteristics of the environment and also on the action capabilities of the organism. Thus, a ladder affords climbing for an adult human but not for an infant as the latter lacks the capacity to climb up the ladder despite its rungs. Affordances can include dangers as well as opportunities (Kaptelinin, 2014). For example, a knife affords cutting a fruit but if not handled properly, it could also cut the user's finger (Blin, 2016a). In claiming this environment-organism relation of direct visual perception, Gibson rejected the then prevailing notion of an intervening succession of cognitive processes competing for the construction of visual perception by the nervous system. Gibson's idea was path-breaking but not entirely exhaustive. However, it did lead to an intellectual outpour of interpretations of affordances from quarters, such as, cognitivist HCI, post-cognitivist HCI, Educational Technology, CALL, etc. that set the path for a much broader understanding of the original Gibsonian affordances (Blin, 2016a).

Ever since its introduction into Human Computer Interaction (HCI) by Norman (1988), the concept has soared in popularity and has also given way to considerable debate on the relationship between affordances and perception, the role of culture in the creation and perception of action possibilities for humans, the user's past knowledge and experiences, the specificity of tool affordances compared to affordances by other natural objects, or the role of learning in the perception of affordances (Blin, 2016a; Kaptelinin, 2014; Gibson, E. and Pick, 2000). Applying an Interaction Design perspective, Norman (1988) defined affordance as follows:

"the perceived or actual properties of the thing, primarily those fundamental properties that determine just how the thing could possibly be used... A chair affords ('is for') support and therefore affords sitting. A chair can also be carried. Glass is for seeing through, and for breaking" (Norman, 1988, p. 9).

For designers of interactive technologies, affordance became synonymous with perception that made everyday things more intuitive and thus, more usable. This understanding suggested, for example, that computers and interfaces should be easy to use and intuitive by making things visible, simplifying the task structures, exploiting the material and psychological constraints, etc. Henceforth, affordance was considered a fundamental design principle in HCI and Interaction Design (Rogers, Sharp, & Preece, 2011). Not only have Gibson's claims been supported by ecological psychology (Milner & Goodale, 1995), designers have found the concept of affordances very useful and have investigated what ensures that affordances of artefacts will be perceived. These may be referred to as the operational or functional organs of the artefact (Baerentsen & Trettvik, 2002).

The formal adaptation of affordances in engineering design posits that designers should consider artefact-user affordances and artefact-artefact affordances. Artefact-user affordances are defined as the "potential interaction between human users and artifacts" and artefact-artefact affordances are defined as the "potential behaviours between two artifact subsystems" (Cormier et al., 2014, p. 260). The artefacts that users want the principal artefact to interact with need to be identified as support, dependent and environmental artefacts. A support artefact is "An artefact that supports the capabilities of another artefact, either adding or enhancing performance" (Cormier, Olewnik & Lewis, 2014, p. 265). Dependent artefacts are those that the principal artefact depends on to function properly. A VC design needs three principal dependent artefacts, notably, good computer hardware, good computer software and a good internet connection. Environment artefacts are those that exist in the same environment or are used in conjunction, either in parallel or in turns, with the principal artefact, for instance email affords communication outside the synchronous VC interactions.

To identify the artefact-user and artefact-artefact affordances that the principal artefact should provide, an affordance statement is proposed as follows: "the principal artifact affords a [user] [affordance] of [target object or environmental entity] [from additional information (optional)]" (Cormier et al., 2014, p. 265). This affordances statement has been operationalised in section 6.1 (p. 126) to identify the designed technological and pedagogical affordances in the study's VC platform design and task designs/session plans. This also calls for an exploration of VC tool functionalities as designed technological affordances in current state-of-the-art VC design to inform this study's analysis and propositions of plausible action possibilities for L2 learning.

2.2.3 VC tool functionalities as designed affordances

Videoconferencing offers an electronic interactive platform that mediates synchronous interactions between people in geographically distant locations via the audio, video and text

channels. It allows people to electronically communicate or collaborate in real time, and share all types of information including data, documents, sound and image. In essence, videoconferencing helps overcome the physical barrier of distance that separates the users.

The traditional mediational artefacts like black/whiteboard, chalk, pen, text books, note books, etc. are replaced by tools and artefacts that are technological (webcam, screen, keyboard, earphones, microphones, etc.), pedagogical and techno-pedagogical (error markers, offline space for post-session feedback, space for offline communication and collaboration between colleagues and with students, onscreen pane to upload lesson design, designed online tasks, multimodal interactions, etc.). Hence, the micro level socio-linguistic and pedagogical actions are facilitated or constrained by the multimodal resources of the technological and pedagogical environments. The conception of VC environments for pedagogical purposes has taken about five decades of research to reach their present-day collaborative and interactive learning specific features.

Videoconferencing debuted in the New York World Fair in 1964 as a futuristic mode of communication. Technical advances in Internet Protocol (IP) and also more efficient video compression technologies were developed in the 1990s that introduced desktop or PC-based videoconferencing. In December 1996, NetMeeting v2.0b2 with video was introduced by Microsoft. In 1998, Cornell University's development centre released CU-SeeME 1.0 that not only supported both Mac and the PC but most importantly featured coloured video. This was a huge leap for desktop videoconferencing. By 2003, high-speed, easily accessible and reasonably priced broadband internet access changed the scenario for videoconferencing. At the same time, the cost of video capture and display technology also decreased. Web cameras and personal computers became affordable for the general public as well as the availability of free software, such as NetMeeting, MSN Messenger and Yahoo Messenger, to name but a few (Pxtan2, 2014).

Most current videoconferencing software are the so called 'cloud-based videoconferencing software as a service'. 'Software as a service' implies the possibility to connect to a website from a web browser without having to install anything on your local computer. This increases user-friendliness as it enables activating the software by just clicking on a link. The terms 'cloud-based videoconferencing' implies that the videoconference is hosted by a company on the internet and every participant calls into the virtual conference room. The numerous advantages of this setting have resulted in it becoming the standard for state-of-the-art videoconferencing software. Here is a short list of its most common features and functionalities:

- No installation of software required;
- Enables joining from computer, laptop, smartphone, tablet, etc. (i.e. any device connected to the internet with a browser);

- Allows joining the conference mid-way, to reconnect in case of technical failure;
- Facilitates minimum impact on other participants in the case of degradation of audio/video quality for one participant due to bad internet connection;
- Enables muting video or audio (without affecting the other) for privacy or technical reasons;
- Facilitates storage of chat history or other shared medium (video, documents, whiteboard, etc.);
- Offers loose synchronization, i.e. the first participant can create a conference ID, send it to other participants and wait for them to join in when they are ready.
- Offers breakout rooms that allows one or a group of participants to isolate themselves from the rest of the group for a certain time. This facilitates parallel group collaborations.

Additionally, it is noteworthy that many of these solutions offer hardware equipment (like screen, microphone and camera) to install into conference rooms so that meetings can be held easily. A few popular videoconferencing software used by enterprises affording all the aforementioned functions are Zoom, Bluejeans, Skype, Google Hangouts, Adobe Connect, Join.me, Cisco WebEx, Citrix GoToMeeting, Workplace by Facebook, Hipchat and Slack. The main difference in these tools is the number of users that can be accommodated in a same conference (ranging from a maximum of 50 to 1000 users), the support and the pricing (“Cisco Webex,” 2019). These videoconferencing software solutions are very popular in enterprise settings and have been used in e-learning settings. A few other e-learning specific videoconferencing software are Blackboard Collaborate, Flashmeeting, ezTalks Webinar and GoToWebinar. They share the same general characteristics from the ‘cloud-based videoconferencing software as a service’ with a few added collaborative and interactive learning specific features (mostly customized from features already present in enterprise-dedicated software).

Examples of these customized functionalities are ‘the virtual study room’ which is a novel way for students to synchronously join a peer-shared study room at any time. Interactive whiteboard (Hellermann & Doehler, 2010; Markee, 2015), file and application sharing with real-time annotation, and the ability to create ad-hoc sessions are key features of the functionalities for students, present in state-of-the-art e-learning-based videoconferencing tools. These are both browser and mobile-based. Additionally, the integration of a ‘learning management system’ (e.g. Blackboard Learn) conceived for large scale users like universities allows the teacher to unlock only specific parts of teaching material during a synchronous lesson via videoconferencing. Other functionalities are the possibility of having ‘break out groups’ (Dahlberg & Bagga-Gupta, 2015; Martin, Parker, & Allred, 2013) where the tutor puts the learners in specific groups or alone online to complete the task. Other possibilities for action include sharing documents asynchronously to

facilitate a flipped approach, screen-sharing, etc. (“Blackboard,” 2019). While these micro level action possibilities may have promising potential for language learning, it is argued that language learning mediated by distance and technology is defined by unpredictability and complexity (Bertin & Narcy-Combes, 2012) with regard to pedagogical activities and outcome at the macro level in such learning systems. Hence, some type of theoretical framework is needed to support the understanding of the different action levels and the complex dynamics of interaction between the different levels.

Exploring these action possibilities only as functional organs of the environment/artefact reveal only a partial picture of the complex network of interactions. Questions have been raised by post-cognitivist scholars (Kaptelinin et al., 2003; Turner, 2005) about complex affordances. They argue that simply ascribing different affordances to different parts of artefacts does not relieve designers of the need to formulate a proper concept of actions. Artefacts offer opportunities for action that can be described at various levels, from manipulation (pushing a button) to social activities (dialling a friend) (Pols, 2011). Research in the context of asymmetrical VC for language learning have yet to determine what those action possibilities are; how they operate at different levels; what the relationship between those levels is; and what knowledge artefact users and designers would need in order to perceive and enact the affordances in the VC learning environment and enhance future technological tool design as well as interaction and pedagogical design. The next section attempts to identify the main characteristics of asymmetrical VC L2 learning and teaching, its linguistic, pedagogical and social action possibilities and constraints as reported by research and the gaps in the literature.

2.3 From VC tool affordances to linguistic, pedagogical and social affordances

Van Lier, (2000) proposes a transformation from an input to affordance perspective in language learning and research. Within this perspective, learning is socio-interactive and depends both on representational (schematic, historical, socio-cultural) and ecological (perceptual, emergent, action-based) processes and systems. In terms of language and L2 learning, language emerges from semiotic activities with others in an environment that offers “a rich semiotic budget” (van Lier, 2000, p. 253). Drawing on Shoner and Newson (1982, p. 34), van Lier (2000) explicates that the linguistic learning space in which the learner becomes actively engaged, is “full of demands and requirements, opportunities and limitations, rejections and invitation, enablement and constraints-in short, affordances” (p. 253). Hence, input is replaced by the notion of affordances or opportunities of meaningful actions that the situation affords. The unit of analysis

is not linguistic input but the activity itself that elicits the unity of perception, speech and action. Language and thought emerge through the learners' engagement in social activity/interaction, both with physical objects and artefacts (tools), and with social, historical, and cultural practices (signs), such as language, sociocultural codes and nonverbal actions. The emergence of such interactions with and within the environment, are central to an understanding of learning (van Lier, 2000, p. 246).

This section reflects the action possibilities that go beyond the simple functional or operational affordances to include more complex sociocultural (intercultural tasks and individual cultures' learning objectives) and socio-pedagogical (interactive task design) interpretations of the action possibilities and constraints with regard to VC-mediated L2 learning and teacher training, although they are not necessarily interpreted through the affordance lens in the literature. Furthermore, this review identifies the different types of VC-based interaction contexts. Firstly, in the broader non-CALL VC-mediated distance education context and then it focuses into the user-artefact and user-user interactions mediated by VC in the CALL literature.

2.3.1 Linguistic, pedagogical and social affordances in learning environments

Blin (2016a) notes that Gibson's theory of affordance or its later cognitivist interpretations fail to address a 'dynamic' view of affordances which are modified through cycles of change and both embody the practices, norms and values of the community that created and used them (p. 49). Affordances from a post-cognitivist or CHAT perspective includes the dimension of activity and change into the notion of affordance, thus broadening the erstwhile concept of 'operational affordances' (Baerentsen & Tretvik, 2002), or 'simple affordances' (Turner, 2005), such as clicking on <send message> etc., into 'complex affordances' or 'organisational affordances' (Vyas, Chisalita and Dix, 2008), composed of networks of interacting actions and activities that undergo change. An example of a complex affordance would be sharing peer feedback asynchronously by clicking on <send message> with learners following a collaborative synchronous interaction session between learners and their teacher. This includes pedagogical, technological and social action possibilities that accommodate changes in users' task ownership and control and group dynamics, and their emotional, semiotic and functional values related to the technology (Vyas, Chisalita and Dix, 2008).

Learning environments are very diverse in terms of the opportunities they provide. In the context of computer-supported collaborative learning, Kirschner, Strijbos, Kreijns, & Beers (2004) affirm that "education is always a unique combination of technological, social, and educational contexts and affordances" (p. 50). Lee (2009, p. 151) defines educational affordances "as the relationships between the properties of an educational intervention and the characteristics of the learner that

enable certain kinds of learning to take place.” Zheng & Newgarden (2012) affirm that educational affordances can be operationalised through the design of tasks, which offer possibilities for action, interaction between students, and coaction, from a distributed cognition perspective.

In the context of VC, technological affordance, from a post-cognitive HCI perspective, is not only about a user-centred design of the basic functionalities of a VC application but strives to place the pedagogical, linguistic and related social ‘activity’ at the centre of the technological design (Blin, 2016a). Social affordances refer to interpersonal (user-user) interactions between subjects (group formation and social dynamics within the group) as well as the user-tool interactions that take place with and through historical, cultural and social codes, such as language, non-verbal action or physical tools. These are perceived, emergent, and acted upon by users based on their needs, motives, past experiences, etc. (Kirschner et al., 2004). A post-cognitivist view on affordances advocates that researchers should not only look at the technological affordances but also at the educational/pedagogical and social action possibilities in the learning environment.

This study argues that in the ‘asymmetrical VC for L2 learning and teaching’ context, the educational affordances encompass both pedagogical and linguistic affordances as the environment simultaneously aims to support the perception, emergence and realisation of pedagogical action possibilities for tutors, and linguistic action possibilities for tutees as their respective educational/learning needs and goals. The pedagogical and linguistic affordances are viewed as the two sides of the ‘educational’ coin. Furthermore, the pedagogical and technological affordances designed in the learning system need to ensure that the linguistic and social affordances or the opportunities to produce language through social interaction are rich, varied, perceptible and realisable. At a macro level, the learning environment itself needs to incorporate a realisable and efficient curriculum design and technological tools that would offer both tutors and tutees these rich and realisable possibilities for action. Hence, pedagogical, technological, linguistic and social affordances are inextricably intertwined as complex affordances in such interacting learning systems.

Affordances, as explained in section 2.2.2 (HCI-related), however, are not only designable and independent features of a system, but rather are dependent on the relationship between the system/artifact and the organism/user. This elicits the question not only of interface design, but rather of interaction design, that is:

- Defining/designing the artefacts, environments and systems as they relate to historical and social usage;
- Anticipating how this usage will mediate human interaction and learning;

- Exploring the emergent interaction between the artefact, users and contextual environment with a view to change and improve on the previous design (Reimann, 2001).

The subjects considered in some collaborative environments are often seen either as the individual member (e.g. learners) of a collaborative team or only the team as a whole. There is a dearth of research that takes into account both these viewpoints (e.g. learners and teachers), as well as the whole community formed of individuals (e.g. learners, teachers and other stakeholders), and groups collaborating in various modes (e.g. different groups of learners and teachers and their various interactional modes). Additionally, the situated curriculum based social affordances are not taken into account. For example, collective post-session reflection by tutors and tutees on their interactions or collaborative creation of task designs (allowing division of labour among teachers and learners) etc. Specific interaction types and spaces are generated by the VC tool, tasks and participant roles. The following sections elucidate the focus of VC-based interaction research in educational settings in general and then review the more specific context of CALL-related VC interactions.

2.3.2 VC-based interaction research in non-CALL educational settings

The first wave of research in VC-based education sought to gauge the technology's value in comparison to face-to-face learning (Greenberg, 2009). The US Department of Education ("U.S. Department of Education Office of Planning, Evaluation, and Policy Development - Policy and Program Studies Service," 2009) conducted a systematic research of the literature from 1996 to 2008 and concluded that blended learning environments were more successful than either fully face-to-face instruction or teaching conducted online. Furthermore, blended settings were reported to maximise the success of a VC-based learning situation. Additionally, VC enhanced with other technologies and strategies were said to make for a more effective learning environment in terms of more resources and more outside class time. Moridani (2007) conducted a comparative study of on-demand asynchronous video streaming and real-time synchronous videoconferencing by investigating a pharmacogenetic therapy course taught over two years. Students taught using asynchronous video lectures had lower satisfaction with the method of content delivery, and preferred live interactive sessions or a mix of interactive sessions and asynchronous video over any one method. This study demonstrates the value of blended approaches in delivering distance education via VC.

Other studies of VC-based distance education explore issues such as pedagogical techniques, cost-effectiveness or impact upon learners. Two-way VC supplemented with 'on demand' video and 'lecture capture' systems and other asynchronous tools allow both learners and teachers to

customise the learning experience, hence, increasing control over delivery and access of materials, resulting in higher learner retention and grades (Greenberg, 2009). Shaer and Fuchs (2008) stressed the need for asynchronous communication to complement the insufficient synchronous interaction time between faculty and learners in all distance education programs.

In terms of pedagogical approaches and tasks, a large number of studies prescribe that interaction is the most suitable activity, supported by the synchronous character of this mode of communication, while denouncing the use of straight lectures for VC. Socratic and constructivist instructions seem to best facilitate this endeavour. Heath & Holznagel (2002) suggest tasks such as developing questions, team work on real life tasks, synchronous interaction to achieve understandings and interpretations, discussions, comparisons and presentations for remote partners by combining other online communication tools. In a review of case studies of innovative VC-based projects and initiatives, Twigg (2001) emphasises the active engagement of learners as they interact with learning materials in teams rather than merely reading them.

In terms of interactions with other participants, Modupe (1999) notes that VC enables remote learners to be part of a socializing environment. The collaboration across distances has led to peer-to-peer interactions as educators seek to broaden the possibilities for socialisation and group collaboration in higher education. Distributed teams also afford broader participation, encountering a wider range of opinions and greater analysis. Amirian (2003) argues in favour of this social interaction learning not only with peers but also between students and teachers over distance to support negotiation of meaning. She also stresses the fact that with VC-based education, educators should start with instructional or learning goals and select technology that supports those goals, not vice versa. VC is seen as a cost-effective way for students in distributed locations to listen and interact in real-time not only with other students from a different cultural context but also with instructors and subject matter experts, thus, enriching the attainment of their learner outcomes. Bradshaw et al. (2006) describe a collaboration between teacher education programs at the University of South Florida and University of North Carolina-Chapel Hill using videoconferencing. The emergence of different student perspectives and that of the two professors enriched the quality of the discussions and learning on both sides. Kriger (2001) describes VC being implemented in traditional classroom existing institutions thus expanding their student population with the help of inter-university joint hybrid partnerships, as well as virtual universities that are completely online.

However, research also shows that not all video-based distance education programs are successful if not applied appropriately. For example, teachers should adopt not only content but also techniques to accommodate the highly interactional and distributed or dispersed classes

collaborating together nature of the pedagogical situations, such as activity-based classes rather than long lectures. Lundgren (2007) assesses in a literature review the four major obstacles to successful VC projects as equipment and technical support issues; professional development and training issues; concerns with time; and fear of technology use. To overcome these barriers, he recommends provisions for adequate access to equipment and support; addressing the issue of time and scheduling; and most importantly, providing sustained, meaningful professional development and training (p. 14).

Lockee, Moore, & Burton (2002) discuss the importance of creating effective formative and summative evaluation models for organisations adopting such video-based distance pedagogies. As formative evaluation, they suggest analysing data collected during the design and development process that can help improve distance education prototyping. As summative evaluation, they suggest analysing data that evidences if learning activities, products and programs have led to the intended outcomes. Research in the domain of CALL-based VC interactions, tends to focus on language learning, teacher training and intercultural exchange.

2.3.3 CALL-based VC interaction types and spaces

In their review of CALL-related VC-based pedagogical practices, Akiyama and Cunningham (2018) note that technology advancement and diversification of participants has resulted in expansive transformation of VC pedagogical practices over the past twenty years. They assert that while tandem (bilingual mode) has historically been and continues to be the most popular arrangement that is researched and being used, more recent studies tend to focus on apprenticeship, cultural exploration, or lingua franca (monolingual) arrangements. Symmetrical or tandem or peer-to-peer exchanges (Cultura, Galanet) via VC are said to be defined by different norms and rules as compared to asymmetrical exchanges (F1L) (Porquier & Py, 2004, p. 37). Consequently, different online behaviour, roles and relations develop as new expectations emerge in terms of the degree of acceptability of an interlanguage utterance or the type of corrective feedback offered (Guichon & Nicolaev, 2011, p. 63).

VC task design and interaction settings:

Kirschner et al. (2004) deal in greater depth with three characteristics of pedagogical, linguistic and social affordances central to VC-mediated collaborative learning environments. These are defined as:

- Task ownership as positive interdependence and promotive interaction (amongst and in between tutors and tutees in this study's context);
- Task character as realistic whole problem solving tasks to segmentation into smaller task assignments;

- Task control as control of direction of content, number and type of delivery media, pacing and sequencing, instructions, feedback type (change of interaction control from tutor as expert to tutee as expert in this context).

The types of tasks identified in CALL-related VC-based pedagogies are information exchange tasks, comparison and analysis tasks, collaborative tasks, co-construction tasks, language-focused tasks and different combinations or sequences of these (Akiyama & Cunningham, 2018; Guth & Helm, 2011; R. O'Dowd & Ware, 2009). Intercultural exploration and sociopragmatics is a 'comparison and analysis' type of task that was observed to be the most commonly implemented in asymmetrical collaborations (C. Develotte et al., 2008; Jauregi & Bañados, 2008; Marti & Fernández, 2016). The crucial role of task mediation and therefore task design to effectively meet learners' needs and objectives in sync with the affordances of the environment is stressed in CMC research. Jauregi & Bañados (2008) suggest that tasks are crucial in shaping interaction processes and promoting learning. Their interaction-based tasks lay special emphasis on reflection on intercultural similarities and differences. They follow the criteria proposed by Chapelle (2003) and Ellis (2003) in that tasks should have language learning potential, focusing on oral practice, on form (Doughty & Williams, 1998) and intercultural issues (Byram, 1997). They should fit the learner's needs and capacities, focus on negotiation of meaning providing opportunities to converse, exchange ideas and information and learn from these exchanges. Furthermore, they should be authentic, that is reflect real world situations; have positive motivating impact (Dörnyei, 2001) promoting a positive attitude and openness towards the target language and culture; be practical and easy to implement in a particular educational context. Guichon & Nicolaev (2011) suggest that the type of online activity influences interactional engagement. They propose tasks for an asymmetrical videoconference collaboration based on the following criteria: with or without pedagogical material, eliciting personal viewpoint, imagination, narrative and argumentative discourse, harnessing fluidity, complexity and grammatical correctness in learners' productions. Guichon and Nicolaev's (2011) study shows that an interaction eliciting students' lived experiences affords more fluid oral productions (students would use their already formed conceptions of things) whereas a personal opinion triggers more complex productions (students would use structures like "*parce que*"/'because"). Dejean & Sarré (2017) in line with Dejean-Thircuir et al. (2010) also assert that intercultural discussions where the students share their lived experiences with tutors and vice versa seem to motivate students as they relate content that they have socially and culturally lived and therefore can relate to as social actors of their own content. However, the link between task types and the curriculum or macro needs of the students and how such task types address those needs were not the focus of their study.

Five types of interaction settings were identified in VC-mediated interactions: dyads, triads, small group, mid-sized group and inter-class exchanges. Akiyama & Cunningham (2018) found that, while many of the pre-2007 projects were inter-class exchanges, current projects mainly involve dyadic, triadic and small group exchanges. Some studies argue that contrary to asynchronous communication, online synchronous exchanges are characterised by a marked lack of depth in reflection (Park & Bonk, 2007). Peterson (1997) asserts that although synchronous modes afford immediate responses, the synchronicity of the environment does not facilitate deep reflective conversations. Asynchronous CMC (ACMC) tools (e.g., email, bulletin board/online forums, blogs, wikis or websites) are used in conjunction with the synchronous real time talk in more than half of VC projects (Akiyama and Cunnigham, 2018). This has the potential to afford asynchronous reflection time and space to complement the fast-paced synchronous interactions.

Asynchronous mode to complement VC synchronicity:

Asynchronous activities are less demanding in terms of time pressure, gaze pressure and image pressure, afford more time for reflection and reinforce the development of online oral competencies. Hampel (2006) proposes a flipped classroom approach wherein learners have access to the materials in advance. Once online, discussions are held in small groups to fill in the information gaps. Hampel (2006) specifies that “the tasks are designed in such a way that by working together in order to complete the tasks, learners build upon the knowledge they have already acquired both within and outside the course” (p. 113). Chanier & Ciekanski (2010) show the process of interactive writing in an environment offering multiple modes and modalities. They claim that in order to better understand the role of multimodal verbal communication in collaborative tasks, research needs to investigate the ensuing written productions that are undertaken in the asynchronous mode following synchronous oral communication. The authors posit that the current tendency in CALL is to overlook the asynchronous writing process when working in a synchronous environment.

Dejean-Thircuir, Guichon & Nicolaev (2010) focus on tutor reflection on the tutor-tutee interactional dynamics for the development of tutor interactional competencies via videoconferencing for L2 learning. Insisting on the specificity of the VC-based pedagogical setting as opposed to classroom learning, the authors argue that the communicative competencies of the students are in part related to the pedagogical mediation initiated by the tutors as interaction regulators. More specifically, the mode of interactional behaviour adopted by the tutors contribute in encouraging student participation and implication.

2.3.4 Regulation of VC interaction by participants

Guichon & Cohen (2016) contend that in asymmetrical tutor-tutee settings, tutors need to develop ‘semio-pedagogical competences’ (Develotte, Guichon, & Vincent, 2010). This involves the tutor’s awareness regarding the semiotic affordances of technological tools that mediate L2 learning and his/her ability to design tasks that are appropriate for the learning environment. They summarise this as media assessment (i.e. assessing the level of complexity of documents to adjust their length or the guidance they provide), mode assessment (knowing what medium or what combination of media will be appropriate for given pedagogical objectives) and task design (Guichon & Cohen, 2016, p. 16).

The role of the tutor as the regulator of the exchange is systematically evoked in the literature as the capacity to orchestrate pedagogical regulation (Guichon & Drissi, 2008), the capacity to facilitate online interaction (Hampel & Stickler, 2005) or the capacity to carry out interactional and pedagogical mediation (Dejean-Thircuir et al., 2010). This refers to the interactional behaviour adopted by the tutors to encourage student participation and implication. These competences include the capacity to use non-spoken regulators, such as gaze, proximity, gesture and text chat (Satar and Wigham, 2017) during the exchanges, regulate pauses and encourage student speech, tolerate silences, manage turn giving and taking, give concise and precise instructions, fill in the gaps during incomprehension or technical failures (Azaoui, 2017) resulting in interactional breakdowns, to name a few. Sarré (2011) evaluates interactional engagement through the occurrence of linguistic phenomena such as negotiation of meaning as well as co-construction of meaning.

Tutor regulating triadic interactions:

Dejean & Sarré (2017) focus on triologue exchanges between two students and a tutor and note that this particular configuration destabilises the interactional rules based on dialogues. Their study focuses on the tutor-tutee exchanges and inter-tutee exchanges from an interactional development perspective for students and development of pedagogical competence for tutors in managing two students simultaneously. They note that for the interaction to be successful, it is important that the interaction takes place as a triologue rather than two alternating tutor-tutee dialogues. Their analysis of the visual mode suggests that triadic exchanges result in disengagement for the onlooking student while the other participates with the tutor.

Tutor as reflexive participant:

Post-videoconferencing debriefings are proposed for teacher trainees by Guichon (2009) with the specific purpose of developing reflexive praxis from a teacher training perspective in

asymmetrical VC. Simultaneously, these discussions allow to understand the specificities of the environment from a user experience perspective. Guichon describes why critical reflection is crucial for the teacher trainees' professional development in the following terms:

“the strategies used by trainees to verbalise their own activity can inform us about the constraints of the work situation and about the cognitive and emotional resources they need to deploy to face up to this unknown professional situation” (Guichon, 2009, p. 172).

Hence, the emphasis is on the perception of the environmental constraints with respect to the tutors' socio-pedagogical interactions. This is confirmed by Hampel and Stickler's (2005) findings that tutors need continuous peer support or mentoring by more experienced colleagues, with a dedicated online space for written reflection and exchange. However, the constraints operating in the asymmetrical VC environment have not been formalised.

Guichon (2009) posits that tutors need to create and maintain optimal conditions in a learning situation in order to provide L2 learning and developing opportunities to learners. In other words, the onus of learner success seems to lie on the tutors. Tutors need to develop three competencies to afford this: socio-affective regulation, pedagogical regulation and multi-media regulation with the aim to encourage learners to develop language skills. This echoes the notion of social, pedagogical and technological affordances that tutors need to perceive and enact. Guichon's study derives its findings from critical reflections undertaken by tutors through lived experiences externalised by a process of 'self-confrontation'. However, their online instantiations are not analysed to triangulate the validity of these conclusions. Guichon (2009) presents a table of systemic constraints that are specific to the fact that the tutors in question are novice teachers, such as dealing with emergency technical failures, careful communication and planning strategies to compensate for the 'blinding effect' generated by distance, management of multimodal functionalities (speaking, writing, onscreen framing, facial expressions and hand gestures), and inability to manage learner activity and tutor's own activity (Guichon, 2009, p. 171). Reviewing the literature of researchers engaged in tutor training as instructors, Guichon & Hauck (2011) propose a list of strategic, theoretical, pedagogical, and organisational guidelines for training purposes. They conclude that tutor training should not only be based on the application of “experiential modelling” by teacher-trainees but also on “exploratory research” based on “action and reflection” (p. 192).

In their study of techno-pedagogical affordances of the VC platform called Visu, Bétrancourt, Guichon & Prié (2011) look at the traceability affordances designed in the tool to afford traces of recordings for asynchronous reflection for tutors. The possibility of asynchronous reflection on

online interactions occupies a privileged position in VC-mediated interaction as by its very essence synchronicity does not afford the time required to reflect online. The pre-session and post-session phases are viewed as valuable moments for reflection by Bétrancourt, Guichon, & Prié (2011) in asymmetrical inter-institutional project. Instantaneous and delayed feedback are stressed as elements that serve as basis for a reflexive activity. The authors posit that reflection on their own practice is a necessary condition for tutors to make sense of their behaviour in context with a view to develop future praxis in similar situations. Building upon Hampel and Stickler's (2005) pyramidal structure of teaching skills, Guichon & Hauck (2011) propose a list of capacities that the online tutor should successfully demonstrate. These are the capacity to evaluate the possibilities offered by the environment for language learning and developing intercultural competences; investigate the needs of the mediation process to introduce technology effectively; have the competences of a digital native; design appropriate tasks; design for both in and out-of-the-class activities; negotiate the rules of the learning environment with students and colleagues; manage time and the integration of technologies effectively (p. 192).

Learner-training and learner-regulation of multimodal interactions:

Moving on from the tutor to the development of learners' interactional skills, Lee, Nakamura, & Sadler (2018) encourage instructors to raise students' awareness of cultural conventions of CMC, including 'basic information about ways to hold the floor in synchronous communication and ways to ensure successful asynchronous collaboration', as well as 'a cross-cultural analysis of communication conventions for the participants' (p. 26). In addition, familiarising learners with paralinguistic elements of communication, such as spatial orientation, gestures and text chat is regarded as being crucial for enhancing their cultural awareness. It is also suggested that learners be informed about the different instances when chat message may be used concurrently with the oral mode, for example.

Hauck and Hampel (2008) note the challenges encountered by online learners, such as "profusion of material; cognitive overload; need for techno-literacy; different time structures (asynchronous and synchronous environments) and impact on interaction; new spatial / visual devices; unequal participation patterns; anonymity of the environment; need for etiquette; need for tutor involvement and support" (p. 283). Hampel (2006) further talks of the relevance of "synaesthesia" which demands language learners "to be trained in the constant simultaneous use of two or more modes for making meaning" (p. 11). Lewis (2006) notes that students needed several weeks to overcome "feelings of stress, bewilderment, and inadequacy" before feeling "at home with multimodality" (p. 595) in an audio-graphic environment at the Open University (UK). Hampel & Hauck (2008) posit that learners should be explicitly trained in strategy-building along with developing a constant reflecting process over the course of their CMC language learning.

Furthermore, from task ownership and task control perspectives in synchronous VC for L2 learning, the authors of a tutee-led interaction study, van der Zwaard & Bannink (2018) assert that “As far as we know, no research has been done into the effects of digital tasks with reversed NS (native speaker) and NNS (non-native speaker) participant roles” (p. 164). van der Zwaard and Bannink’s (2018) study inverts the roles of students as cultural experts recounting culturally-laden jokes to native speakers, who as cultural novices listen to the jokes. The aim is to see how their online behaviour and use of mode is affected by this change in social interaction roles. It was observed that despite their linguistic prowess, the native speakers did not initiate negotiation of meaning (NoM) even in situations where they did not understand the content. This behaviour mirrored the learners’ behaviour, thus, suggesting that NoM was not a preferred repair sequence, notwithstanding the linguistic level of the participant. The students, on the other hand, adopted the same communication strategies that experts do by trying to clarify and help the other understand, albeit, mainly via the text chat mode rather than the video mode. This study is relevant from a task ownership and task control perspective, corroborating Firth & Wagner’s (1997) observation that the situated social identities of both groups should be taken into consideration instead of defining them solely by their language competency or the lack thereof. However, it focuses on a very micro picture of the interaction. From an emergent perspective, it would be interesting to see how participants change their negotiation behaviour as they grow more familiar with each other, that is toward the end of the project as compared to the beginning.

It was found that in asymmetrical VC for L2 learning and teaching settings, most studies used conversation and discourse analysis to study micro or meso interaction level phenomena. There were not, in our knowledge, any studies that looked into the dynamics between the micro and macro level designs of action possibilities or the emerging affordances, in the context of triadic asymmetrical VC interaction, seen through a post-cognitivist lens. Contrary to the use of CA and DA in most VC-based studies, CHAT and its application in post-cognitivist HCI to understand complex affordances was found to be more suitable to inform this study’s complex dynamic interacting learning systems.

2.3.5 Challenges related to asymmetrical VC interactions

There is limited research to date that investigates the learner and the constraints they face in VC for L2 learning. One such study is conducted by Kinginger (1998) who evaluates the discursive and pedagogical value of the VC exchanges in terms of the students’ exchange with native speakers of the L2. Kinginger notes that anxiety during the online exchanges was exacerbated

and the differences between the variety of classroom L2 as compared to native speaker L2 created blockages. Students preferred to read their questions in French thus avoiding the discursive pressure or stress related to on the spot management of L2 utterances. Moreover, students did not ask any clarification questions neither did they react to what was said. The conversation was one-sided and artificial. These studies reflect the constraints, tensions and contradictions in such VC exchanges. Anxiety can be triggered by the novelty of the situation, the temporal pressure exerted by synchronous communication, or any technical failings of the videoconferencing platform (Guichon, 2009, p. 170). Thus, arises the question regarding task design and interaction design to facilitate the reproduction of the ideal ‘pedagogical conversation’ scenario.

O’Dowd & Ritter (2006) investigate the reasons behind “failed communications” in telecollaborative exchanges between pairs. By “failed communication”, the authors imply a negative evaluation by students of their online exchange experience with students of the target culture. The authors identified four levels at which telecollaboration can fail: the individual, classroom, socio-institutional and interaction. At an individual level, it depends on the participant’s intercultural communicative competence, knowledge, motivations, expectations, and also the stereotypes that they bring with themselves. At the class-level, they stress upon other factors such as teacher-to-teacher relationships, the task design, the matching of learners, and the local group dynamics. The socio-institutional level includes the mediating technologies and their designs, the problems that arise from a mismatch in students’ courses of study, timetables, contact hours, workload and assessment procedures, or inclusion of CMC in the University’s programme. The biggest challenge at the interactional level is to engage students’ deeper levels of interaction. Ware (2005) contends that differences in expectations, in interactional purpose, in using linguistic conventions, social and institutional differences, individual differences in motivation and use of time can lead to mismatches and tensions over the course of CMC projects. The aforementioned tandem VC challenges can be extended to the asymmetrical VC context too.

Blin & Jalkanen (2014) suggest a reconceptualisation of language, language learning and language teaching in technology-mediated learning environments as boundary objects between designers, teachers and learners. According to Hedestig & Kaptelinin (2005), achieving the potential benefits of computer-supported collaborative learning (CSCL) is expected to be directed towards two main goals: “design of technologically advanced environments” and “design of learning activities”, that is, creating new collaborative learning contexts which would help to make the full use of the potential provided by technology.

2.4 Discussion and Conclusion

Theoretical concepts from cognitivist and sociocultural theories that underpin face-to-face pedagogical interactions have informed technology mediated L2 learning and teaching. The advent of the internet and the development of videoconferencing tools facilitating communication between geographically distant locations have redefined the nature of L2 learning and teaching. The various combinations of audio, video and text-based modes and media afford rich multimodal interaction possibilities that are designed to enhance the quality of online learning and teaching experience. As Kirschner et al. (2004) point out, designers of learning focus on methods supporting learning processes, and not attainment of predefined goal unlike the world of knowledge. This probabilistic view is similar to the systemic view's emergent nature as in a collaborative environment, numerous properties may emerge and affect interaction.

In this context, the concept of 'affordances' or action possibilities that are offered to animals by the natural environment is transposed to the context of manmade technologically-mediated learning environments to understand and inform human computer interactions and interaction design. From tool functionalities or designed technological affordances, new multimodal socio-pedagogical and linguistic action possibilities emerge. A review of the literature on VC interactions allowed to identify the gaps in the literature with regard to asymmetrical VC. It is noted that using mainly CA and DA epistemological tools, research in this domain has emphasised the micro level interactional phenomena (Blin, 2017), notably VC-mediational tools and tasks, tutor-tutee multimodal interactions and tutor reflection on their collective activity to inform L2 learning and teaching. There is limited research to date that investigates curriculum or institutional needs that shape the choice of tasks and the micro level moment-to-moment interactions. Moreover, macro level constraints imposed by the educational design on either side (tutor and student) at the institutional level have not been focused upon in the asymmetrical VC literature. Most importantly, even though most studies discuss affordance-related phenomena, they do not base it on any formal understanding of asymmetrical VC affordances.

Exploratory studies in asymmetrical videoconferencing are particularly interested in how learners as well as teachers use different modes to make meaning (Flewitt, Hampel, Hauck, & Lancaster, 2009). This has prompted exploration of specific tool functionalities, tasks and tutor-tutee interactions that are said to mediate L2 learning and 'learning to teach' online (Dejean-Thircuir et al., 2010; Develotte & Mangenot, 2010; Guichon, 2009; Guichon & Nicolaev, 2009; Hampel & Stickler, 2012; Hampel & Stickler, 2005). As part of inter-institutional collaboration projects for language tutoring and teacher training purposes, asymmetrical VC interactions lay emphasis on the need to develop semio-pedagogical multimodal competences (Develotte, 2008; Guichon,

2009) through critical reflection on one's own context-embedded practice. This thesis asserts that the different action possibilities in the technology-rich learning environment and the relation between them need to be understood to inform VC pedagogical design.

In this study's context, VC as an inter-institutional collaborative learning system presents complex interactions. These not only concern artefact-artefact and artefact-user interaction as viewed by cognitivist approaches to HCI, but also user-user interaction at the individual tutor-tutee level as well as the collective level. This collective level implies the tutor system and tutee system in their respective institutional contexts. This implies viewing the VC interactions through the lens of post-cognitivist notion of interpretative complex affordances rather than affordances as simple perceptual functionalities, thus, calling for an expansion of the original Gibsonian understanding of affordances. Post-cognitivist HCI proposes activity theory as a framework for human-technology interaction research (Kaptelinin & Nardi, 2018). The ontological and epistemological basis of CHAT will be presented in the following chapter in order to defend its suitability to support the study of higher level affordances.

Chapter 3 Activity theoretical perspective on videoconferencing and its affordances

A review of the themes explored in asymmetrical VC-based pedagogical research, in the previous chapter, showed that there is limited research to date that links the micro moment-to-moment interaction level, the meso session design level and the macro learning ecosystem level within which they are embedded. How the macro level needs shape and constrain the session designs and tutor-tutee interactions need to be investigated further in order to inform asymmetrical VC-related theory and practice.

This chapter proposes to explore the combined potential of two theoretical standpoints that have been borrowed from different psychological traditions, but are both complementary in their perception of contextual influence on learning and transformative change. Cultural Historical Activity Theory (CHAT) (Leontyev, 1978; Engeström, 1987) and the post-cognitivist interpretations of Gibson's theory of affordances (Kaptelinin and Nardi, 2012) are both rooted in the belief that the individual psychological, collective social, and environment contextual levels are all interconnected, from a learning viewpoint. This chapter traces the ontological foundations of these two theoretical approaches and presents the suitability of their epistemological tools to study affordances in complex technology-rich learning environments as they shape or constrain the sociocultural, linguistic and pedagogical components of such learning environments.

3.1 Ecological paradigms in SLA

The ecological metaphor, first borrowed from the natural sciences into developmental psychology posits that human abilities and their realisation depend largely on the larger social and institutional context of individual activity. An ecological perspective on human development offers to analyse the evolving interaction between the individual and the environment (Bronfenbrenner, 1979).

3.1.1 Ecological perspectives on second language learning

Language ecology (Haugen, 1972) today is widely used in psychologically (micro-ecology) or sociologically (macro-ecology) oriented multilingual research within second language acquisition (SLA), bilingualism, multilingualism, language policy etc. (Creese, Martin, & Hornberg, 2008). The influence of cultural psychology (Cole, 1988; Stigler, Shweder, & Herdt, 1990) and Soviet theories of language (Vološinov, 1986) and cognition (Vygotsky, 1962) in

anthropology, education and notably SLA, sought a shift from an exclusively micro understanding of the individual's encounter with the foreign language in classroom settings to a macro understanding of the relationships between cultural, historical and social aspects on individual and collective language acquisition. The most noteworthy contribution from a social perspective in SLA since the 1980s has been Vygotsky's (1978) artefact-mediated action theory for the cultural and social formation of the mind; Leontyev's (1978) activity theory that further extended this into a molar unit of activity, i.e. an aggregate of multiple artefact-mediated neighbouring actions whose internal dynamics would reveal the motivation for individual actions; and the application of this psychological investigation of activities to SLA by Jim Lantolf (2000), among others, under the name of sociocultural theory (SCT).

SCT argues that internal concept formations on the psychological plane are a consequence of the individual's external interactions on the social plane. For Vygotsky, the individual's external activities in the social environment are inextricably intertwined with the development of his/her cognitive processes. In the area of language learning research, SCT introduced the need to account for social and cultural phenomena in an otherwise psycholinguistic field. Hence, the notions of symbolic mediation, collaborative learning around real-world tasks prescribed by SCT lean towards an ecological approach to SLA through L2 socialisation. However, despite SCT's efforts to dissociate itself from earlier input theories by emphasising interactional, collaborative, or socialization processes giving precedence to the social and cultural to explain acquisition processes, it still retains some aspects of the structuralist, dichotomous view of the cognitive and the social as separate realms (Kramsch & Vork Steffensen, 2008, p. 20–22).

For ecologically-oriented researchers, sociocultural approaches are not only about social interaction but also “about the role of longer time-scale constancies and how they constrain, afford and intrude into moment-to-moment activity” (Lemke, 2001, p. 20). Lemke (2002, 2001, 2000) asserts that the main essence of an ecological approach is underpinned in the notion that language education operates on multiple spatial and time scales, e.g., the spatial and time scale of the institution, social life, job market, etc. In his eco-social model for capturing multiple timescales, Lemke (2001) observes that it is essential to consider classroom dynamics both in relation to individual activities, identities and trajectories and in relation to broader school and community contexts. Ecological research studies in general attempt to bridge the micro-macro gap.

The post-structuralist turn proposed by chaos/complexity theory (Larsen-Freeman, 1997) and Engeström's (1987) Cultural Historical Activity Theory (CHAT) offer a much broader lens to view the development of language in its relation to life at a global level. These ecological theories suggest studying the interactions between complex, nonlinear processes of dynamic systems

(Blin, 2016b; Van Lier, 2004a). They look for relations between different spatial and time scales. For example, between the microlevel of the individual organism/local behaviour and the macrolevel of society/global events; between past and potential future performance; the interactions between organic learning (where learning is derived from culture or society) and inorganic tools such as computers, tapes, etc. They transformed the monist understanding of individual thought processes and activity, as suggested by Leontyev (1978), and bridged the prevalent dualism between ‘individual and society’ and ‘individual cognition and group socialization’.

3.1.2 Cultural Historical Activity Theory (CHAT)

As mentioned earlier, CHAT proposes to observe the molar unit of activity, i.e. an aggregate of multiple artefact-mediated neighbouring actions whose internal dynamics reveal the motivation for individual actions. Moreover, according to CHAT, actions make sense only in the context of a whole series of actions the individual carries out and the interrelated actions of others (Blunden, 2015). Furthermore, CHAT proposes epistemological tools necessary to concretely capture complex forms of systemic interaction that bring about transformative change. That is, the possibility to perceive the learning activity as a dynamic instrument changing from the old to a new state. CHAT allows to gain a holistic and at the same time analytic view of the overall structure and dynamics of change by analysing the constantly changing ‘object’ of the subject’s activity and contradictory situations/systemic tensions.

A monist perspective rejecting mind-body dualism:

The concept of activity was first introduced in philosophy and subsequently in the human sciences in order to overcome the Cartesian divide between the subject and the object, the “inner” world of consciousness and the “outer” world of materiality. The German idealist philosophy of the early 19th century accepted Kant’s idea about the construction of the world of experience by the “transcendental subject” but at the same time rejected his idea concerning the existence of an external reality as the “thing in itself” whose nature is unknowable. Based on the popular idea vehiculated by modern science that humans can have genuine knowledge only of those things that they create themselves, these philosophers espoused the idea of ‘activity’ as creation of the world of objects by the transcendental subject. All phenomena, objective and subjective, are constructed, mediated by cognitive or mental activity and that it is senseless to speak about reality beyond the system of such activity (Lektorsky, 2009). The individual could no longer be understood without his or her cultural means and the society was perceived as an extension of the agency of individuals who use and produce artefacts. This association of human activity with the creation of the world of objects or the insertion of cultural artefacts was revolutionary as it engendered the

conceptualisation of a unit of analysis that overcame the split between the Cartesian individual and the untouchable external and societal structures. Objects became cultural entities and the object-orientedness of activity and action became the key to understanding the human psyche (Engeström, 2001, p. 134).

Marx inherited from this tradition and sought to overcome the notion of subjectivism in this perspective. Marx's understanding of the human being originated not in the activity of consciousness but rather in real material activity, praxis, labour transforming real natural and social surroundings. Lev Vygotsky (1978, 1962), following in the Marxist lineage, elaborated the theory of cultural mediation of higher psychic functions from inter-psychological (between individuals) to intra-psychological (internal to an individual) development. Communication between the child and the adult, using human-made things such as language signs and the creation of intrapsychic processes was at the centre of his studies. Many scholars, including Engeström (2001), attribute the first variant of cultural-historical activity theory to Vygotsky. However, Vygotsky himself did not speak about activity theory. Moreover, a few of his pupils (A. N. Leontyev, P. I. Zinchenko, and P. J. Galperin) and other psychologists (S.L. Rubinstein) critiqued his elision of the role of practical activity in the process of mediation. Nevertheless, all scholars enjoin that Vygotsky's ideas form without doubt the basis of all contemporary variants of activity theory (Lektorsky, 2004, p. 77). The first variant of psychological activity theory was elaborated by Vygotsky's student, the famous Soviet psychologist, A.N. Leontyev (1904-1979).

3.1.3 Leontyev's activity theory

The conceptual framework of activity theory was developed by Leontyev mostly in two books: *The Problems of the Development of Mind* (1981) (published in 1959 and translated into English from Russian in 1981) and *Activity, Consciousness and Personality* (1978) (published in 1975 and translated into English in 1978). In these, he set out to trace the evolution of the human mind from its most basic form to advanced forms of consciousness. Leontyev sought to develop a conceptual framework, which would be general and fundamental enough to serve as the theoretical basis for that endeavour. The concept of activity was introduced by Leontyev very early in his analysis as the most central concept of the proposed approach. He suggested, "I will call the processes of activity the specific processes, through which a live, that is, active relation of the subject to reality is realized, as opposed to other types of processes" (Leontyev, 1981, p. 49).

Likewise, in examining the problem of how human consciousness is determined, Leontyev claims that one has to consider the significance of the "processes that are active in the subject" (Leontyev, 1978, p. 2). He further elaborates the bridge between the individual and the social, the mind and

the material as being represented by the activity of specific individuals. Leontyev proposes a symbiotic relationship between the individual who is governed by the norms and rules of the society but the society in turn depends on the activity of the individual. Thus, Leontyev's perspective coincides with an ecological viewpoint of human development. He looks at the individual as a microcosm of collective activity, although this has been interpreted differently in various CHAT traditions that will be covered later in this chapter.

Leontyev's object-oriented activity and its component parts:

What is forceful in Leontyev's proposition is that he gives a concrete unit of analysis, the human activity both in its subjective and objective forms. This provides an observable unit that extends Vygotsky's sociocultural mediational processes for psychological development. To explain what 'activity' is, one needs to begin with the 'object of activity', one of the most basic concepts of activity theory as elaborated by Leontyev. The 'object' is what summons the subject's activity into being and defines it, regardless of whether this activity is an external or internal one (for example, "the object of eating," "the object of labour," "the object of contemplation," etc.) (Leontyev, 1981, p. 49).

"The basic, constituent feature of activity is that it has an object [...]. Activity may appear to be objectless, but the scientific investigation of activity necessarily demands the discovery of its object. [...] Moreover, the object of activity appears in two forms: first, in its independent existence, commanding the activity of the subject, and second, as the mental image of the object, as the product of the subject's "detection" of its properties, which is effected by the activity of the subject and cannot be effected otherwise" (Leontyev, 1978, p. 4).

Therefore, the object has both an objective (independent) and subjective (perception-based) existence. It is summoned by a need or desire of the subject. When a need (of the subject) finds its object, the latter acquires an existence both on the material and psychic realms as 'motive' for the subject's 'activity'. In its 'independent' existence in the material realm it undergoes transformation at the same time as it transforms the activity of the subject. In its 'idealised' existence in the psychic realm, it appears as a product of the perception and reflection of the subject engaging in the practical activity. Both objective and subjective are united in this concept of the object of activity. This perspective seeks to overcome the mind-body, inner world-outer world duality and sees the outer as an extension of the inner and not as two separate irreconcilable realms. However, as Kaptelinin (2005) observes, the relationship between these interpretations still remains an open issue in current activity theory-based research.

Leontyev (1978) further stresses the social development of activity as humans develop complex multiphase activities, working in groups, to engender greater ergonomic advantage. Consequently, a socially needed ‘object’ is decomposed into a series of ‘goal-oriented actions’. Social cooperation implies setting of specific ‘goals’ for individual ‘actions’ thereby entailing ‘division of labour’. The individual actions’ goals are part and parcel of the activity as they intend to realise the group’s object but they differ from the object motivating the activity as a whole. In other words, activities are summoned by existing objects that are identified by a social need of the group. Actions are summoned by personal goals of individuals seeking to fulfil the object of the activity (Blunden, 2010, p. 205). The distinction between motive-oriented activity and goal-oriented action is expressed by Leontyev in his famous hunting example:

“The identification of these goals and the formation of activities designed to achieve them lead to a kind of splitting up of functions that were previously united in their motive. Let us assume that a person’s activity is stimulated by food, this is its motive. However, in order to satisfy the need for food he must perform actions that are not directly aimed at obtaining food. For example, one of his goals may be the making of trapping gear. Whether he himself will later use the gear he makes or pass it on to other participants in the hunt and receive part of the common catch or kill, in either case his motive and goal do not directly coincide, except in particular cases” (Leontyev, 1978, p. 7).

Hence, ‘actions’ give ‘human activities’ their form. ‘Action’ is regarded as the process that obeys a conscious ‘goal’ in order to achieve a result. Just as ‘motive’ is associated with ‘activity’, likewise, the setting of the ‘goal’ as a subjective idea determines the method and character of the ‘actions’ that constitute the activity. ‘Sub-actions’ may also emerge in this process of attaining goals (Leontyev, 1978).

Additionally, Leontyev distinguishes between the cognitive treatment of ‘known’ objects (operations) and ‘unknown’ objects (actions) for humans. Operations are a type of sub-action. The operations or operational activity have an acquired quality to them. “Operations bear certain typified repeated features of actions in response to ongoing conditions of activity” (R. Engeström, 1995, p. 198). These relations are flexible though, that is, an action can become an activity, a goal can transform into a motive, an action can become an operation, and so on.

“Any operations - regardless of whether they are outward-directed or inward-mental, [...] have a relatively independent existence and are capable of being embodied in one material form or another – in the form of instruments, machines, multiplication tables, simple arithmetic, or complex calculator-computer apparatus. [...] But the operations in essence are only ways and means of thinking, and not thinking itself” (Leontyev, 1978, p. 57-58).

Operations are ‘only a means’ of human activity and object. They are present in collective knowledge and mediated through cultural-historical artefacts and are acquired by the individual through social relations and socially relevant activities. A hierarchical representation of activity, actions, and operations in Leontyev’s activity theory is summarized in Table 3.1

Table 3.1: A summary of activity, actions, and operations (Leontyev, 1978)

| | Unit | Description | Object |
|------------------|--|--|---|
| activity | triggered by a need or desire of the subject that has found its object; undertaken as a consequence of awareness of motive | derived from social motive; dependent on individual actions | motive of activity remains constant; realized through various sub-motives or goals |
| action | structural constituents of activity; cognitive treatment of unknown object | result-oriented process of individual aiming goal; collective actions realise activity | goal of action is a subset of motive but distinct from motive of activity it realizes |
| operation | controlled repeated features of action; conscious or subconscious treatment of known object | ways and means of thinking but not thinking itself | autonomous of motive or goals but determined by cultural-historical usage |

The significance of Leontyev’s suggestion lies in the decomposition of the activity into actions, and the latter into operations. It is noteworthy that although both Vygotsky and Leontyev understood the problems of collective activity and the collective character of the primary forms of psychological processes, neither of them focused on collective activity per se. It was Leontyev’s students who began to study collective activity in different forms (Davydov, 1988, 1999). Rubtsov (1991) proposes several types of collective subjects of learning activity presupposing constant communication between participants as a necessary condition (Lektorsky, 2004, p. 77). They have shown that it is not enough to understand collective activity in terms of actions, operations, motives, goals, and tasks. It is also necessary to take into account the values and norms of activity. Furthermore, the notion of internal contradictions (briefly explained by Leontyev) as the driving force of change and development in activity systems was expanded by Ilyenkov (1977) and this became the guiding principle of empirical research of activity systems in the works of Engeström and his colleagues as internal and external contradictions (Engeström, 2001; Engeström, Miettinen, & Punamäki, 1999).

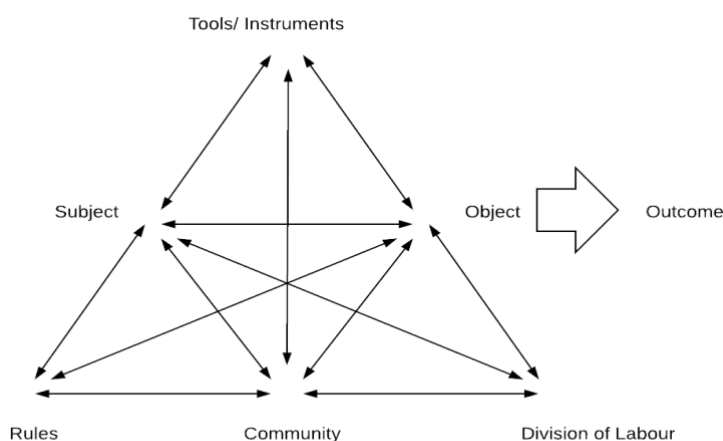
3.2 Engeström's model of Activity Theory

Probably one of the most influential activity theorists of present times, Yrjö Engeström, based in Helsinki, focuses on Developmental Work Research in the domains of health, education, training and work organisations. His interpretation of CHAT draws upon Vygotsky's socioculturally-mediated cognitive process and Leontyev's original conceptualisation of activity theory. Engeström's review of Soviet CHAT and examination of the various units of analysis in his classic work *Learning by Expanding* (1987) led to the conception of the "expanding triangle" that has been the hallmark of his work and that of his followers (Blunden, 2010, p. 229).

3.2.1 Engeström's model of Activity Theory

In Engeström's basic model of the expanding triangle, the activity of social subjects is illustrated in concrete terms that obviate the individual-social blur that still persisted in Leontyev's ideas. In Engeström's triangle (illustrated in Figure 3.1), the Vygotskian tool-mediated individual to object or individual to environment relation is further expanded to feature the individuals' relationship to their environment as being mediated by their community.

Figure 3.1: Engeström's model of activity system (1978)



Furthermore, the individuals' relationship with their environment is mediated by material and semiotic tools of cultural-historical character. Emergent tool use and tool making underlie the system of activity mediating between individual needs and their fulfilment. The community's relationship with the fulfilment of common needs is mediated by a division of labour. The individual's relationship with the community gives way to the formation of more complex communities and social relations that are mediated by norms, rules, values and traditions. This

‘whole’ represents human activity (individual or collective subject) set against its cultural-historical backdrop as determined by its component parts and multiple bidirectional mediations.

In Engeström’s developmental work scope, the object of this activity system is seen as a “problem space” with contradictions that arise either internally in the mediating links or externally to the activity system. Each iteration of the activity schema attempts to resolve these contradictions resulting in a changed relation between the component parts of the system. This produces an ‘outcome’ that may be either intended or unexpected (Engeström, 2005, 2001, 1987).

Unlike Leontyev’s work that focused on the individual subject’s object-oriented activity set against the social context, Engeström’s activity theory takes into consideration a more complex interaction of multiple activity systems operating at the collective level set against social rules, community and division of labour as the unit of analysis. The fundamental notion of CHAT is rooted in human agency; the individual’s capacity to act in a given context. In doing so, it not only expands on atomistic and functional modes of psychic processes that are treated in isolation (for example, intellect and affect) (Vygotsky, 1986) but also enjoins the inner cognitive with the outer socio-cultural structures into one single unit of activity. Human actions are mediated through material artefacts (for example, axe, book, pen, computer) and semiotic tools (for example, signs, language) that are products of contextual historical and cultural innovation and usage. These two categories of tools appear clearly in Vygotsky’s and Engeström’s triangular models.

3.2.2 Third generation CHAT and its analytic tools

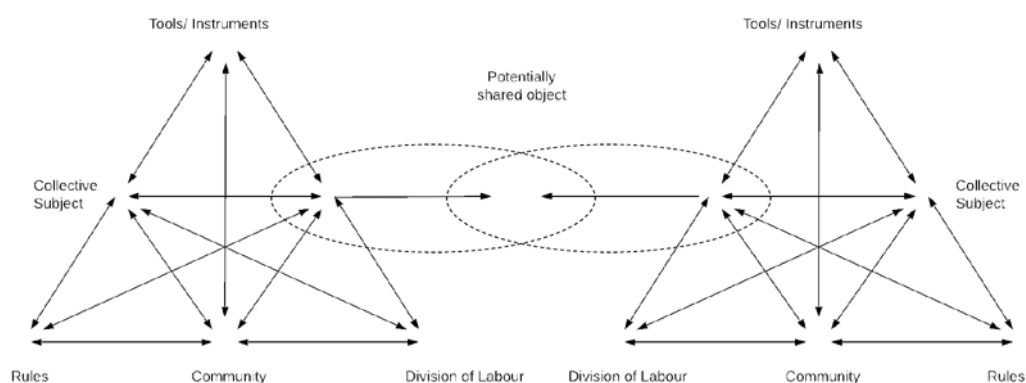
When activity theory started being adopted and applied internationally (Cole, 1988), conceptual tools were developed to include dialogue (Wertsch, 1991), multiple perspectives (R. Engeström, 1995), and networks of interacting activity systems (Engeström, 2001) in different space and timescales (Lemke, 2002). These developments expanded Leontyev’s AT into the third generation of activity theory where the basic unit of analysis includes at least 2 interacting activity systems. Third generation activity theory suggests the need to encompass a more complex macro level collective activity-based and socio-culturally-mediated understanding of human behaviour rather than a micro level understanding of interacting activity systems only. In third generation activity theory, two interacting activity systems are taken as the minimal unit of analysis focusing on the constraints and possibilities of inter- and intra-organisational learning. It seeks to answer four fundamental questions: who the learners are (i.e. subject); why they learn (i.e. needs/motives); what they learn (i.e. object); how they learn (i.e. activity, actions, operations).

The five most important concepts of third generation activity theory are: interacting activity systems as unit of analysis, historicity, transformative change, multivoicedness and contradictions (Engeström, 1999, p. 177), as discussed below.

Interacting activity systems as unit of analysis:

Third generation activity theory proposed by Engeström (2008) suggests a new unit of analysis in which a collective (subject), artefact-mediated and object-oriented activity system is seen in its relation to other activity systems. The “social mediators” (Engeström, 2008) such as rules and division of labour as well as tool-mediators (Leontyev 1978; Vygotsky, 1978) together influence the subject’s enactment of activity (collective) and actions (collective or individual) to attain an object that is potentially shared by the systems by virtue of their inter-activity/ inter-action. The interacting activity systems in ‘third generation activity theory’ (henceforth, referred to as CHAT) are illustrated in Figure 3.2.

Figure 3.2: Unit of analysis of third generation activity theory (interacting activity system)



Historicity:

Activity systems have a historical identity in the sense that they take shape and get transformed over lengthy periods of time. Their inherent tensions, contradictions and potentials can only be understood against their own history. History itself needs to be studied as local history of the activity and its objects, and as history of the theoretical ideas and tools that have shaped the activity. For example, educational work needs to be analysed against the history of its contextual organization and against the more global history of theoretical pedagogical and didactic concepts, procedures and tools employed and accumulated in the contextual activity (Engeström, 2001, p. 137). To what extent these concepts or “voices” are actually “found in the talk of the speaking

subjects, how they are used, and what may go beyond the culturally given and expected are all questions for empirical analysis” (Engeström, 1995, p. 202).

Multivoicedness:

CHAT introduces interacting activity systems and the plurality of subjects and voices, of multiple points of view, traditions and interests. Multivoicedness is multiplied in networks of interacting activity systems. CHAT proposes to understand dialogues, multiple perspectives, and networks of interacting activity systems as part and parcel of emerging societal transformations. The division of labour in an activity creates different positions for the participants, the participants carry their own diverse histories, and the activity system itself carries multiple layers and strands of history engraved in its artefacts, rules and conventions. The multivoicedness of discourse (Engeström, 1995; Wertsch, 1991) draws on Bakhtin’s (1976, 1981) “heteroglossia” or “orchestrated polyphony”. This offers a dialectical understanding of expansive transition involving social language as mediated action to resolve tensions and struggles that arise in interacting activity systems.

Contradictions:

The most salient feature of the interacting activity systems are its inherent contradictions and tensions which may emerge either within a node of an activity system, or between the nodes, or between different activities, or between different developmental phases of a single activity (Kuutti, 1996, p. 34). Contradictions are basically actions that do not follow the expected course of action but are, nevertheless, seen as potential building blocks of change and development (Engeström, 2008, p. 27).

“It [a contradiction] constantly generates disturbances which open up opportunities and call for novel solutions that can lead to transformations in the system” (Engeström, 1999, p. 178).

CHAT emphasises not only identifying inherent contradictions and tensions but also suggests ways to overcome these through direct interventions. CHAT, thus, promotes an interventionist expansive learning theory and methodology as the activities evolve through iterative cycles of expansive transition. Expansive learning is generated when “individuals begin to question the existing order and logic of their activity” (Engeström & Sannino, 2010, p. 5). In doing so, CHAT not only seeks to answer ‘what’ and ‘how’ type questions typical of the ecological research agenda, but also ‘why’ subjects may fail to follow expansive transformation, thus, adding an interpretative layer.

Expansive transformation:

An expansive transformation is accomplished when the object and motive of the activity are reconceptualized to adopt a significantly wider array of possibilities than those present in the previous mode of the activity (Engeström, 2001, p. 137). Generally, such a reconceptualisation is the product of an attempt to overcome a contradiction. It emerges as participant(s) begin to question and deviate from the activity's established norms. In some cases, this develops into collaborative envisioning and a deliberate collective change effort as the activity moves through cycles of qualitative transformations. A full cycle of expansive transformation may be understood as a collective journey through the zone of proximal development of the activity (Engeström, 1987, p. 174).

The notions of human agency or the power to act is at the centre of CHAT's understanding of activity. This level of analysis zooms out to the activity level instead of solely observing isolated psychic functions inside an individual's head in order to understand human development. An ecological perspective imposes a further zooming out to explore the individual activity in its collective interactions with other activity systems.

3.2.3 Contradictions

Engeström (1987) has formalised a framework of four types of discursive manifestations of contradiction to analyse sequences of change efforts in organisations. Primary contradictions reflect the fundamental tensions in the general realm/society. In Marxist terms, the primary contradiction of capitalism resides in every commodity, between its use value and exchange value. In the context of education, the primary contradiction may be said to reside in the dual construction of the object of learning. The tension between learning/teaching for one's long-term holistic development versus learning/teaching to secure marks in a module for institutional recognition and certification (Blin, 2005; Lin, 2007). The primary contradiction entails secondary contradictions specific to the particular conditions of the given activity. Secondary contradictions take place when two nodes of the activity system enter in conflict with one another. Tertiary contradictions arise when the object of a more developed activity is introduced into the central activity system as a response to the secondary contradictions. Quaternary contradictions are triggered by a ripple effect from efforts to remediate a tertiary contradiction. Quaternary contradictions arise between the central activity and its neighboring activity systems when a new form of practice is employed based on a reformed and/or expanded object (Foot & Groleau, 2011).

According to Engeström and Sannino (2011), 'contradiction' is a foundational philosophical concept that may manifest itself in the form of paradox, tension, inconsistency, conflict, critical

conflict, dilemma, or double bind. Some of these terms will be theoretically defined on their own and viewed in relation with emerging interaction disruptions in the specific context of this study.

Disturbances in the organisational context is defined as deviations from the normal scripted course of events in the work process, interpreted as symptoms or manifestations of inner contradictions of the activity system in question (Y. Engeström & Sannino, 2011, p. 370).

Dilemmas are traditionally studied in social psychology as means for understanding processes of decision making, moral reasoning, social representations and ideologies. Dilemmas are defined as those aspects of socially shared beliefs which give rise to the dilemmatic thinking of individuals. They are ideologically created and products of history (Billig et al., 1988).

It is interesting to look at different manifestations of contradictions as they energise and catalyse change and transformation over time (Engeström & Sannino, 2011; Engeström & Toivainen, 2011). From an emergent affordance perspective, contradictions, therefore, lie at the very heart of new action possibilities and developmental change. This makes the investigation of contradictions useful from the perspective of initiating and developing inter-institutional projects and tool design in the context of asymmetrical VC for L2 learning and teaching.

3.3 Activity theoretical approaches to affordances

In the light of the above discussion on CHAT's ecological stance that views human activity as mediated by cultural and social artefacts and tools, it is necessary to review Gibson's original interpretation of 'simple affordances' in the light of more encompassing complex influences and constraints exerted by neighbouring activities and the sociocultural context within which the interacting activity systems operate. Hence, a renewed understanding of affordances underpinned by activity theoretical framework to encapsulate the influence of macro project-level design components on technological design and vice versa will be proposed here.

3.3.1 Activity theory and HCI-related affordances

Perception has long been a central topic of study in philosophy, psychology and neuroscience, attempting to answer how people go about their daily lives but most importantly how one acquires knowledge (Dotov, Nie, & de Wit, 2012). Gibson's (1979) concept of affordances went a step forward by refuting orthodox psychology's assertion that one perceives objects insofar as one discriminates their properties or qualities. Gibson (1979) suggested that "what we perceive when we look at objects are their affordances, not their qualities" (p. 134).

“An affordance cuts across the dichotomy of subjective-objective and helps us to understand its inadequacy. It is equally a fact of the environment and a fact of behavior. It is both physical and psychical, yet neither. An affordance points both ways, to the environment and to the observer” (Gibson, 1979, p. 129).

With this stance, Gibson refuted the Cartesian dichotomy between human cognition and the physical and social world, or the world of thought and the world of things.

Human Computer Interaction (HCI) emerged in the 1980s as a joint venture of cognitive psychologists and computer scientists to deal with questions on users, usability and user-centred design in human computer interactions based on information processing cognitive models. In the 1990s, with the proliferation of technology in social, cultural and organisational contexts, some HCI researchers started looking for alternative analytic tools to overcome the limitations of purely cognitivist approaches that focused on the individual’s use of a computer (Bødker & Klokmoose, 2011; Kaptelinin et al., 2003). HCI researchers sought the aid of sociocultural conceptual tools in activity theory and phenomenology, amongst others, as the most prominent post-cognitivist HCI frameworks (Kaptelinin, 2014; Vyas, Chisalita, & Dix, 2008; Vyas, Chisalita, & Van Der Veer, 2006). Various cognitivist and post-cognitivist interpretations of affordances emerged. Broadly, a cognitive perspective of the affordance would identify a set of observable technology attributes or functions provided by the designer (Vyas et al., 2006, p. 93) whereas the post-cognitive viewpoint saw affordances as emerging from the users’ actual interactions with the system (Vyas et al., 2008, p. 4).

Initially, the cognitivist debates around affordances focused on the relationship between affordances and perceptions. Norman (1988) first defined affordances as the perceived and actual properties of the thing, that determine just how the thing could be used. This met with the criticism that it was far from Gibson’s notion that affordances exist independently of perception. Norman (1999) later distinguished between Gibsonian ‘real’ affordances versus ‘perceived’ affordances. Finally, Norman (2013) separated real affordances and the information about them.

Gaver (1991, p. 80) focused on perceptible affordances of technologies as possibilities offered to users. Firstly, he developed on Norman’s definition of affordances and suggested a framework with different combination of the presence and absence of perceptual information about the presence and absence of an affordance. He proposed four categories, namely, perceptible affordances, hidden affordances, false affordances and correct rejections. Secondly, Gaver (1991, p. 82) discussed affordances for complex actions comprising several sub-actions. These are called

sequential affordances and nested affordances. Sequential affordances occur when acting on a perceptible affordance leads to information indicating new affordances. Nested affordances refer to a grouping of affordances in space, where one affordance serves as a context for another one. Thirdly, he proposed multimodal affordances, such as, tactile information and sound that should be taken into account along with visual perception. Gaver (1996) also investigated perception and use of media spaces as opposed to classic physical spaces.

McGrenere and Ho (2000), like Gaver, put forward the idea of a clear separation between the existence of affordances and the information about it. They asserted that the former is independent of the actor's experiences and culture, while the ability to perceive them may depend on experience and culture. They argue for the usability and usefulness of designs. Usable designs have information that takes into account the end-users' expertise and cultural conventions. Usefulness is determined by what the design affords and whether it matches the goals of the user. They also talked about understanding functional hierarchies of affordances like Gaver's nested affordances. They also described varying degrees of affordance or the ease with which an affordance can be undertaken and varying degree of perceptual information which is the clarity of information that describes the existing affordance.

Wagman and Carello (2003) suggested that when analysing how people use affordances of a tool one should distinguish between tool-user interface and tool-environment interface. They also noted how visual information is combined with perceptual information from other modalities.

Vicente & Rasmussen (1990) in *Ecological Interaction Design (EID)* investigated the levels of control of perception and action at three cognitive levels: skill-based level, rule-based level, and knowledge-based level. The perception-action control was faster, more automatic, and less error-prone at the first two levels than analytical problem solving at the knowledge-based level. Hence, more control is possible at the cognitively-mastered level actions.

3.3.2 From cognitivist to post-cognitivist understanding of affordances

Albrechtsen, Andersen, Bødker, & Pejtersen (2001) assert that activity theory and Gibsonian thinking share the common notion that perception is not afferent, that it is connected with action. Furthermore, people perceive their environment only through acting. However, activity theory is argued to present a much larger theoretical scope for the study of perception and action as compared to the theory of affordances. This is because, unlike Gibson's direct perception of real information, CHAT considers the socio-historical aspect of an actor's interaction with the environment. Moreover, CHAT takes into account mediation and learning unlike Gibson's naturally occurring directly perceived affordances. Additionally, AT understands the use of tools

as a cultural organ/extension, and this is not accounted for in Gibson's theory of affordances. CHAT offers an account of all the levels of human activity while Gibson's affordances focus mainly on the lowest level of operations.

Baerentsen and Trettvik's (2002) analysis of affordances from an activity theory perspective proposes that Gibson's interpretation of affordances are limited to low-level interactions at the level of operations between the organism and the environment. The post-cognitivists also suggest that the concept of activity in Gibson's theory has not been fully developed and this poses a hurdle to applications of affordances in complex environments with culturally-specific understanding of affordances. Baerentsen and Trettvik (2002) extend Gibson's affordances to need-related, instrumental and operational affordances. Need-related affordances are related to motives and needs (at the activity level). Instrumental affordances are related to the action possibilities (at the action and operation levels) shaped by sociocultural artefacts. The instrumental affordances are equated to Gibson's affordances that are further sub-divided into adaptive operational affordances related to the human adaptation to the environment and consciousness affordances that are learned through active participation in the cultural-historical context (Baerentsen and Trettvik, 2002, p. 55-58).

This echoes Vyas et al.'s (2008) proposition of 'affordance in information' (what is afforded) and 'affordance in articulation' (how the system is interpreted through use) that seek to observe the different patterns of action that emerge while users interact with the system/artefacts. Vyas et al. (2008) further extend the analysis of affordances at the individual-level, group-level and societal-level and contend that affordances emerge in activities that are being socially and culturally constructed. Hence, while engaging with technology, users' active interpretation is central to the emergence of affordances. Furthermore, they assert that affordances should be analysed at the artefact/tool level and the practice/activity-action-operation level.

Building on this, Kaptelinin and Nardi (2012b) further argue that Gibson's theory does not provide adequate conceptions to explore human actions mediated by historical and cultural tools. They propose a mediated action perspective on affordances, based on Vygotsky's (1978) mediated action theory and Leontyev's (1978) activity theory. According to this understanding, affordances emerge as a result of interactions between actors, their mediational means, and the environment. They propose instrumental affordances termed as handling and effector affordances (Kaptelinin & Nardi, 2012b, pp. 972-974). In addition to this, they identify auxiliary affordances where technological affordances interact with subject, object, and cultural environments in complex relations within "webs of mediators" (Bødker & Andersen, 2005, p. 354). They also

insist on some form of instruction to allow users to access a tool's instrumental and auxiliary affordances, and hence stress the learning of affordances.

3.3.3 Affordances in language learning and CALL

In language learning, Van Lier (2000) introduced the notion of linguistic affordances that he defined as the relation of interaction possibilities between people. Van Lier (2004, pp. 90–96) also proposed social or communication affordances. Based on an action-perception-interpretation understanding of Gibson's original affordances, van Lier (2000) proposed an interplay of 'immediate linguistic affordances' and socially 'mediated affordances' to link language to actions. Furthermore, van Lier (2000) argued in favour of the ecological notion of affordance as an alternative to input, wherein an active and engaged learner perceives linguistic affordances in an environment with rich semiotic budget and enacts them for linguistic action. This promotes, according to van Lier (2000), interactional processes between the learner and speech acts or speech events that trigger action potential promoting further action leading to higher and more successful levels of interaction. By enacting these affordances new linguistic actions are possible which lead to the speakers producing more complex interactions. Different individuals with different motives construe the task in different ways unlike the notion of 'input' that carries the idea of a mechanical static code entailing coding and decoding of readymade and expected responses. He further proposed that the unit of analysis should be the activity itself rather than any kind of linguistic input or object. Lee (2009, p. 151) defined educational affordances "as the relationships between the properties of an educational intervention and the characteristics of the learner that enable certain kinds of learning to take place".

CALL studies have explored technological affordances for Web 2.0 technologies or virtual worlds (Conole & Dyke, 2004; Dalgarno & Lee, 2010; De Haan, Reed, & Kuwada, 2010; Nocchi, 2017), linguistic affordances in telecollaborative chat (Darhower, 2008) and how they are constrained due to incompatibility between technological affordances and linguistic activities (Laurillard, Stratfold, Luckin, Plowman, & Taylor, 2000), and the interplay of social, pedagogical and technological affordances in computer supported collaborative learning environments (Kirschner, Strijbos, Kreijns, & Beers, 2004). However, the interpretations and implications of affordances in CALL design and research are still largely under-explored by the CALL community (Blin, 2016a). According to Blin (2016a) and Bonderup Dohn (2009) the problem with the current research scenario in CALL affordances is, first, a lack of clarity of the concept of 'affordance' as reflected in certain studies that do not necessarily state the ontological and epistemological basis of their understanding of affordances in an explicit manner. Second, the mixing and matching of mutually incongruent understandings of the concept that lead to deformed representations and interpretations both at theoretical and practical levels.

In CALL ecosystems, educational, technological, linguistic and social affordances are inextricably interlinked (Blin, 2016a). The technological affordances are inscribed within broader “educational affordances” which afford “construction and transformation of a shared object”, “linguaging” and “linguistic and cultural learning” (Blin, 2016a). Blin, Nocchi, and Fowley (2013) suggest that some of these affordances are consciously engineered by CALL designers, while others emerge in the course of the users’ interactions with the technological tool, digital objects, peers, teachers, or other users of the target language. In their study of designed and emerging affordances in Second Life, they propose a nested distribution of educational and linguistic affordances at the macro and micro levels respectively. Technological affordances facilitate the smooth functioning of the language and educational affordances. If a user failed to perceive a technological affordance, it would “constrain the long-term educational affordance, which in turn affected the language affordance in unpredictable ways” (Blin, 2016a, p. 49).

3.4 Discussion and Conclusion

This chapter argues in favour of CHAT as a holistic framework that offers the epistemological tools necessary to capture the system level dynamics (need, change and contradiction) of various spaces and timescales (both remote and close) interacting within technology rich learning environments. The macro level dynamics determine the actions and tensions that emerge at the meso and micro levels of the activity system. Therefore, as suggested by Levy & Caws (2016), Lemke (2001), and Roth (2001), it is crucial to zoom out and in from micro to macro to micro levels of the learning environment, to capture the big picture of elements enveloping the micro context and that orchestrate the systemic tensions and contradictions.

Three fundamental considerations are proposed in an ecological approach study. Firstly, the subject is viewed as a growing dynamic entity that progressively restructures the environment in which it resides. Hence, change is at the heart of the system’s development. Secondly, the interaction between the subject and the environment is seen as a dyadic or larger interactional process and bi-directional as the environment orchestrates its influence on the dyadic interactions and vice versa. An affordance-basis that stresses the interdependence of the participants’ perception and action in conjunction with the inherent qualities of the environment is an essential aspect of the ecological approach. Thirdly, the observations of transformative change are not confined to a single level of observation. The immediate level and a level higher and a level lower that influence this developmental process are also taken into account.

CHAT seeks to “explain the qualitative transition from a series of mental individual actions to a new collective, material activity system” (Engeström, 1987, p. 22). It is argued that the identification of the transformation of the mediated actions will help to identify the emerging affordances. The interacting activity systems in the VC interaction are viewed through an ecological lens to see what transpires inside the activity system and the dynamics with elements around it.

CHAT emphasises the societal dimension of development and does not only focus on the individual psyche. It attempts to break free from the traditional theories of learning as a process of acquisition and reorganisation of cognitive structures defined within the strict peripheries of specific task types by broadening the basis of learning and development to collective activities and organisations. CHAT proposes to bridge the gap between the micro and macro levels of human activity. This enjoins the ecological perspectives on language and language learning that seek to transcend the cognitive-sociocultural divide that plagues traditional SLA and has seeped into CALL (Blin, 2016b, p. 40).

The notions of original Gibsonian understanding of affordances are considered limited. A need is felt for more advanced understanding of affordances as designed and emerging at all levels of human activity for individual actions and operations and collective activities in socially and culturally rich contexts for learning and transformative change. CHAT offers the epistemological tools that support the exploration of these affordances at different levels.

Furthermore, Gibson talks about countless possibilities of affordance waiting out there to be discovered. However, he does not explicitly delve into the question of why the observer should choose an affordance, that is what motivates him/her to look for affordances in their environment; what motivates the observer to choose one affordance over another in a series of perceived affordances. These are questions that invariably implicate motivation, that lie at the origin of activity. It is noteworthy that the aforementioned questions have the purpose of orientating one’s perspective towards an ecological understanding of the theory of affordances, rather than the original understanding of affordances by Gibson and as adopted by a preliminary utility and usability interpretation of affordances in HCI. This is precisely what this study aims to do. Furthermore, Gibson rejects the valency of affordances and argues in favour of a purely objective perceptual level. Gibson espouses a meaningless and valueless (in the phenomenal, experience, and culture-laden sense of the term) understanding of affordances.

In line with the conceptualisation of affordances proposed by the post-cognitivist perspective (Vyas et al., 2008) in HCI, this study argues that affordances can be distinguished into two types:

those that are directly perceived and have an operational automatic quality to them, and those that are constructed in activities and practices as a result of socially and culturally-mediated interpretation. Hence, users' 'active interpretation' is essential for the emergence of affordances that are socially and culturally determined (Vyas et al., 2008). The human component and human agency are at the centre of technology-mediated studies as humans innovate while engaging in the use of the technological environments (Norman, 1988). However, the affordances of new tools and spaces for learning are not always perceived in formal education. The notion of learning is not accorded significant importance either in the original theory of affordances as basic affordances do not require much learning (E. J. Gibson & Pick, 2000). A view contrary to this is presented by Eleanor Gibson and Anne Pick (2000). They assert that affordances do not automatically present themselves to the actor. They must be discovered through perceptual learning and actors must learn to use them. This "may require much exploration, patience, and time" (Gibson and Pick, 2000, p. 17).

This study emphasises the investigation of designed and emerging affordances to understand and inform VC interactions within its broader sociocultural, pedagogical and educational contexts. The methodology designed to implement this with the help of the CHAT analytical tools will be discussed in the following chapter.

Chapter 4 Epistemological and methodological considerations for a CHAT-based study

The previous chapter elucidated the ontological relation between CHAT and the theory of affordance and how their epistemological reception in research studies have evolved in keeping with the needs and contexts of technological tools and related activities. This chapter reviews the suitability of CHAT's epistemological tools to explore the notion of affordance in the context of asymmetrical VC interactions for language learning and teaching. First, the study's research questions are recalled in the light of the gaps identified in the asymmetrical VC literature and the literature review of affordances based on a post-cognitivist activity theoretical understanding. The historical, cultural and pedagogical context of the asymmetrical VC project ISMAEL is illustrated as networks of interacting activity systems for both tutor and tutee activity systems. Then, the methodological choices that govern the creation of a multimodal learning and teaching corpus (LETEC corpus) with the aim to compile data derived for research purposes from the ISMAEL project are discussed. Subsequently, the creation of a distinguished corpus from the ISMAEL (LETEC) corpus, to address this thesis's specific research questions is elaborated. Finally, the suitability of CHAT as the epistemological framework to address the research questions aided by the distinguished corpus is analysed. Three temporal levels (micro, meso, macro) of the tutor-tutee inter-activity are delineated and the study's unit of analysis is defined.

4.1 Research agenda

The literature review of VC-mediated asymmetrical multimodal interactions as well as the concept of affordances revealed that affordances for such learning environments have not been formalised at the micro moment-to-moment interaction level or the macro project design (contextual) levels of the learning environment. In the light of the above gap in the literature, this section will explicate the reasons for the study while recalling the relevant research questions to support the thesis's enquiry.

4.1.1 Reasons for the study and research questions

This thesis seeks to understand the dynamics between the VC tool design and the users' (tutees and tutors) use of these designed functionalities and how the two influence each other through a process of mutual modification of the learning environment and artefacts that eventually lead to enhanced understanding and developmental transformation for both the material environment and the users. Informed by a post-cognitivist activity theory-based understanding of affordances

(Kaptelinin & Nardi, 2012), this study, therefore, proposes to explore the ‘designed affordances’ in the VC environment and the ‘affordances that emerge’ as the VC activity undergoes transformative change. Hence, going beyond the view of communication affordances (Hutchby, 2001) only, this study proposes to explore the concept of affordances at the operation, action and activity levels that shape the educational philosophy of asymmetrical VC for L2 environments. Moreover, the review of the literature on asymmetrical VC shows that most studies focus on micro level moment-to-moment interactions and there is a dearth of studies linking the interaction design with the session design and project design components of the learning ecosystem. In line with CHAT’s philosophy on activity and learning, this thesis also seeks to identify change in action and perception and their manifestations at the level of the VC activity system. Unpredictable and surprising actions that digress from the initial plan are inevitable, according to CHAT, and their manifestation from the perspective of affordances points towards specific human preference, characteristics and knowledge that are not necessarily taken into account in the design phase but that would inform future designs of the learning environment. In view of the above rationale, it would be useful to recall the research questions that pave the direction of enquiry for this thesis’s research design.

Research question 1 seeks to explore what technological, linguistic and socio-pedagogical affordances have been designed and introduced by the conceptors and participants of the asymmetrical VC project and what factors promote and constrain the enactment of these affordances.

Research question 2 seeks to investigate what new affordances emerge in the process of enacting the designed affordances and what factors facilitate or constrain their realization.

Research question 3 evokes the question of the practical and theoretical implications of the emerging affordances in asymmetrical synchronous videoconferencing to inform future technological and pedagogical design, and learner and teacher training.

4.1.2 Rationale for using CHAT

As rationale for using CHAT to address the research questions, this thesis argues that CA and CDA, that have mostly been used by studies researching asymmetrical VC environments, do not offer the epistemological tools, offered by CHAT, to research activity holistically. Although, Laclau and Mouffe (1990), from a CDA perspective, posit that speech actions and physical actions are essentially similar discursive acts, Engeström (1999) argues that this is a problematic stance as it does not help in identifying or delimiting the boundaries of the unit of analysis. He further argues that the concepts of ‘positioning’, ‘interpretive repertoire’, and ‘ideological dilemma’

proposed by CDA (Fairclough & Wodak, 1997) are positions and roles of discourse that cannot be used as comprehensive units of analysis in themselves in the absence of the activity context within which they operate. Both CA and CDA insist on “discourse as a privileged and more-or-less self-sufficient modality of social conduct and interaction” (Engeström, 1999, p. 170) bereft of any contextual information about their relatedness with any practical activity. Instead, Engeström argues in favour of meaningful molar units that have distinctive “argumentative fabric” and “discursive histories” that are to be found in practical object-oriented activity that undergo developmental change. This may also be called productive activity (Leontyev, 1978; Cole, 1996; Engeström, 1999).

It could be further argued here that CA and CDA studies are guided by a research agenda whose focus is on human discourse per se and the roles and relations between interactants that emerge and not so much on discourse related with activity situated in a specific environment. CHAT proposes an empirical and theoretical connection between discourse and action and activity by bounding discourse within activity systems, focusing on subject-object relation ‘changes’ as expansive transformations in collective activity settings. This may be attributable to the fact that the research agenda of CHAT-based studies is developmental change in organisational activity and subjects. For this, CHAT focuses on patterns, disturbances, and tensions directly in the subjects’ practical and material activity and as they emerge in discourse communication, to inform the subject-environment dynamics (in this case affordances or action possibilities) of the activity system under scrutiny. In CHAT, talk or discourse is connected to tool-mediated units of activity that constitute the participants’ social life whereas talk in CA and CDA is not seen with respect to practical or material tool-mediated actions and activity.

In order to examine the compatibility between the CHAT analytical concepts explored in the previous chapter and their role in addressing the above research questions that seek to provide an understanding of the designed and emerging affordances in the learning environment at the micro, meso and macro levels of L2 learning via videoconference in asymmetrical settings, a few methodological considerations are reviewed here. Each study has its own peculiar context accompanied by its own specific set of challenges. Choices made to fulfil the methodological needs against the backdrop of this study’s specific set of challenges are categorised as follows:

- defining a corpus-based educational research approach;
- defining the videoconferencing context as network of activity systems;
- delineating the online pedagogical conversation in terms of actions and operations;
- defining a unit of analysis that provides a holistic view of the learning activity;

- capturing a systemic view of the micro, meso and macro levels of the learning ecosystem;

Each of the above categories will be discussed in this study's context in this chapter. Firstly, defining a corpus-based educational research approach, it must be noted that this study was conducted as part of an inter-institutional research project that involved teachers, researchers and participants from two universities. A multimodal corpus was generated as part of this project. A number of methodological considerations informed the research design for this study as described below.

4.1.3 Corpus-based research design (ISMAEL)

This study is inscribed within a broader educational and corpus-based research project (ISMAEL) that looks into different aspects of 'asymmetrical multimodal VC for language learning and teaching', with the aim to bridge the gap between academic research and practice. The ISMAEL corpus was generated as part of the ISMAEL project following the guiding principles for the creation of a learning and teaching corpus (LETEC). This will be described in the section following the introduction of the context of the ISMAEL project.

The origin of the ISMAEL project is rooted in an action-based research project (w3.u-grenoble3.fr/fle-1-ligne) called '*Le français en première ligne*'. It was initiated in 2002 by two linguist-researchers, Christine Develotte from the National Institute of Pedagogical Research, Lyon and François Mangenot from University of Stendhal, Grenoble 3. This project promotes distant language teaching between students, albeit, in an asymmetrical setting. In other words, trainee teachers of French as a foreign language in France interact with students of French language outside France. Unlike common instances of telecollaboration, the students do not share the same status nor a common object. The object of the French tutors is to improve their didactic skills, whereas, that of the students is to get support for the enhancement of their linguistic knowledge and competences. While the University of Grenoble 3 proposes asynchronous communication, such as written comprehension and production, Lyon 2 proposes synchronous and asynchronous online oral interactions and exchange. This enables different communication networks for students coming from different parts of the world. As a result, the project organisation, proposed content and acquired competences are different for different contexts² (Souvignet, 2008).

² The project offers open access information on tools and project building on a resource website jointly built by the University Agency for Francophone studies (*Agence Universitaire de la Francophonie*), University Lumière Lyon 2, and University Stendhal Grenoble 3:

As part of '*Le français en première ligne*', ISMAEL was an inter-university collaborative project for French language learning and teacher training via videoconferencing, spearheaded and engineered by lecturers from Université de Lyon 2 (France) and Dublin City University (DCU, Ireland) and supported by their respective research laboratories, the *Interactions, Corpus, Apprentissages, Représentations* Laboratory based in ENS Lyon, France and the Centre for Translation and Textual Studies at DCU in Dublin, Ireland, as well as the Ulysses programme for Franco-Irish partnerships. As part of this Lyon-Dublin tutor-learner telecollaborative project, twelve Master's students training in 'teaching French as a foreign or second language (*FLES*)' from the University of Lyon 2 tutored online eighteen DCU students from the Bachelor's programme in Global Business (Year 2) in Semester 1 of the 2013 academic year. The VC interactions took place between 15 October 2013 and 3 December 2013, over a period of six weeks, using the videoconferencing platform Visu. Visu, first instantiated in January 2010, was designed and developed by French engineers as part of a research project called ITHACA (Interactive Trace for Human Awareness in Collaborative Annotation). This project was itself a collaborative venture between the Informatics laboratory LIRIS (Lyon 1), the ICAR laboratory (Lyon 2), and the TECFA laboratory (Geneva) specialising in tool ergonomics and usage.

For the master's students in Lyon, the exchange was part of an optional module in online teaching with the aim to help develop professional skills to teach French online and engage in reflective analysis around their teaching practice. For the undergraduates in Dublin, the exchange was part of a 12-week Business French module of CEFR level B1.2 (Council of Europe, 2001). The module outcomes for the Dublin students included researching the French job market, preparing for a job application, writing a CV and cover letter.

This research project called ISMAEL, short form for InteractionS and Multimodality in lA nguagE Learning or *InteractionS et Multimodalité dans l'Apprentissage et l'Enseignement des Langues* generated a variety of multimodal productions or artefacts both in the course of the online interactions and outside the interactions as interpretative reflections. These productions were compiled into a learning and teaching corpus (LETEC) for the benefit of the wider research community as well as to collaboratively investigate the various phenomena of asymmetrical VC from a language learning and pre-service teacher training perspective.

[Le français en première ligne](#) (Souvignet, 2008).

4.1.4 Multimodal LEarning and TEaching Corpora (LETEC)

A corpus is a body of texts and spoken material assembled in some principled way (Kenny, 2001) with respect to the selection of data, the structuring of data and its subsequent sharing with a larger research community (Chanier & Ciekanski, 2010). Corpora are generally large (consisting of thousands or even millions of words) representative samples of a particular type of naturally occurring language, written or spoken, used as references for measuring certain characteristics of language usage in real contexts (Baker, 2006). Corpus linguistics has been employed in a number of areas of linguistic enquiry, including corpus-based language studies (McEnery & Hardie, 2012), corpora in discourse analysis (Baker, 2006), language description (Sinclair, 1999), language corpora in teaching (O’Keeffe, McCarthy, & Carter, 2007) and learner computer interaction (LCI) involving a LEarning and TEaching Corpus (LETEC) (Chanier & Ciekanski, 2010), to name a few.

LETEC denotes a ‘learner’ corpus (Granger, 2004) that brought about a shift from corpora capturing only native speaker usage of the language in formal and informal situations. The LETEC approach to data collection, structuring, sharing, annotation and analysis comprises successive phases that have been developed from 2006 onwards by the Mulce project (Reffay, Betbeder, & Chanier, 2012), such as systematic data collection, detailed data description, data conversion, data release and distribution as key stages of the corpus creation process (Chanier & Wigham, 2016). The creation of a LETEC involves keeping the object of the research in mind and building a pedagogical scenario that includes the multimodal environment, participants, the activities and the roles. Next, a research protocol that defines the variables to be investigated, the participants to be included, the ethical considerations to be undertaken, the methods and procedures used to collect the data, and the role of researchers and observers are established. All this appears clearly in the LETEC using standard formats so that the context is clear for researchers who were not present during the data collection and wish to reuse the corpus at a later stage (Chanier & Wigham, 2016).

LETEC corpora are built with the aim to make the data sets “comparable, re-analysable, and available to the whole research community” (Chanier & Wigham, 2016, p. 237), with the principal aim to replace the concept of individual research producing one-off analyses with the concept of long-term team research projects. Systematic organisation of data collected in natural learning situations is infamous for being time-consuming. The combined effort generated by the division of labour in a LETEC-based team research project enables specialised expertise and rigour in the establishment of large data sets, following systematic conventions of data collection (anonymisation, organisation, transcription, annotation, etc.) within time frames that would otherwise be humanly impossible for a lone researcher.

A convention needs to be signed by people who want to access the LETEC corpus for research purposes once it has been released and distributed in open source format. Chanier and Wigham (2016, p. 225) explain that releasing a corpus signifies allowing other people to re-use the data, add their own work to it and distribute the results freely. This implies that once the convention has been signed, the researcher-user can use the corpus with minimal constraints, while acknowledging intellectual property rights by citing the original creators in subsequent analyses.

A simultaneous analysis of a corpus as a team rather than individually collected data allows the possibility to simultaneously probe into a number of different variables that influence a learning environment while ensuring inter-researcher validity and reliability. Additionally, this methodology ensures a reuse of the corpus on a longer timescale. This allows new analyses by different researchers involving varied perspectives that could serve the dual purpose of cross-referencing studies from one environment to another, as well as cross-examining original findings with new findings in the same learning environment.

4.2 DCU-Lyon institutional cultural and historical context

The VC project was embedded within a module in their curriculum for both Lyon tutors and DCU tutees. Here, the Lyon tutors' institutional norms and rules within the cultural and historical context that composed their activity system will be first described, followed by the DCU tutees' institutional, cultural and historical context.

4.2.1 Activity system analysis

In order to address this thesis's activity-based research agenda and questions, CHAT epistemological tools are adapted to:

- Identify the different activities being conducted in each host institution as part of the project's learning ecosystem.
- Identify the principal activity system where the participants from both institutions interact directly with each other as subjects.
- Identify the component parts of the interacting activity system.
- Identify the disturbances and breakdowns in the various narratives of the different participants: debriefing sessions, tutor reports, student voicethreads, participant interviews.

Hence, the institutional cultural and historical contexts of the two interacting institutions in this context (Dublin and Lyon), are modelled as networks of activity systems (Engeström, 2001) in

the following section. This will in turn allow to delimit the boundaries of the unit of analysis for this study.

4.2.2 Dublin's institutional cultural and historical context

Pioneering interdisciplinary projects in the Irish higher-level education, the School of Applied Language and Intercultural Studies (SALIS) in DCU combines Foreign Language learning and Translation studies with other disciplines, such as, Communication Studies, Journalism, Science, Informatics, Business Studies, Accounting and Finance and International. These interdisciplinary projects form the basis for course development and research projects in DCU's professional and historical ethos. All language programmes are designed to follow the university's rules of module-based structure driven by semester-wise learning objectives and outcomes. Creativity and technology are encouraged through the creation of intercultural and inter-establishment projects (Loftus, Tiernan, & Cherian, 2014).

French for Business purposes course:

The module entitled *French for Business purposes* (FR238) is designed for Business students who spend one or two semesters in the third year of their respective undergraduate programmes in a French university or *Grande Ecole* as part of an exchange programme. The students obtain a dual degree from DCU and the French university. The language curriculum for this module is specifically designed to respond to three needs of students in a study abroad context: smooth immersion in France/French institution, academic needs and professional needs.

The French programme, therefore, aims to induce students' reflection on different cultural representations of a given concept and to consciously reflect on their own personal representations of the same. Another objective is to help students build strategies to seek help from peers or French professors in order to circumvent difficulties when studying abroad. Finally, the students are required to acquire a formal and advanced level of language in order to seek a professional job experience in France. The first two years spent in DCU aim to propose modules that facilitate a step by step attainment of the aforementioned competences for the students.

Freshly recruited from secondary school, for most of the students, the first-year modules focus primarily on helping students develop learner autonomy and consolidate their language knowledge and skills. In the second year, the number of language modules increases and so does the academic and professional component in the language curriculum with respect to the specialisations sought for their third year abroad in France.

The ‘French for Business Purposes’ (FR238) module was designed for second year undergraduate Dublin students for the first semester of the academic year 2013/2014. The module prepared students to work innovatively in groups by creating their own future jobs using a number of collaborative learning and sharing tools, such as Google Docs, Google Slides, WordPress, Forum, etc. The Virtual Learning Environment (Moodle) accessible for students and teachers both on and off the institutional site provided the basis for communication of learning activities, tasks and materials. A dedicated website for the module encompassing the VC interactions was created by the module lecturer using WordPress that could be accessed directly from the assigned module page on Moodle. The module was divided into 2 parts of 6 and 5 weeks. One week in the middle called the reading week was a break from classes where students were expected to engage in personal work. The objects of the principal activity included on and off-site group work, creating a personalized CV and cover letter, and creating a VoiceThread with personal reflections on the learning process. The six-week videoconferencing component, pairing the Business students of French with tutors of French from University of Lyon 2, was integrated in the FR238 module for DCU students. Although the Dublin lecturer had already participated in tandem symmetrical VC projects before, this was the very first instantiation of an asymmetrical tutor-learner interaction for the French programme lecturer and for the Business students.

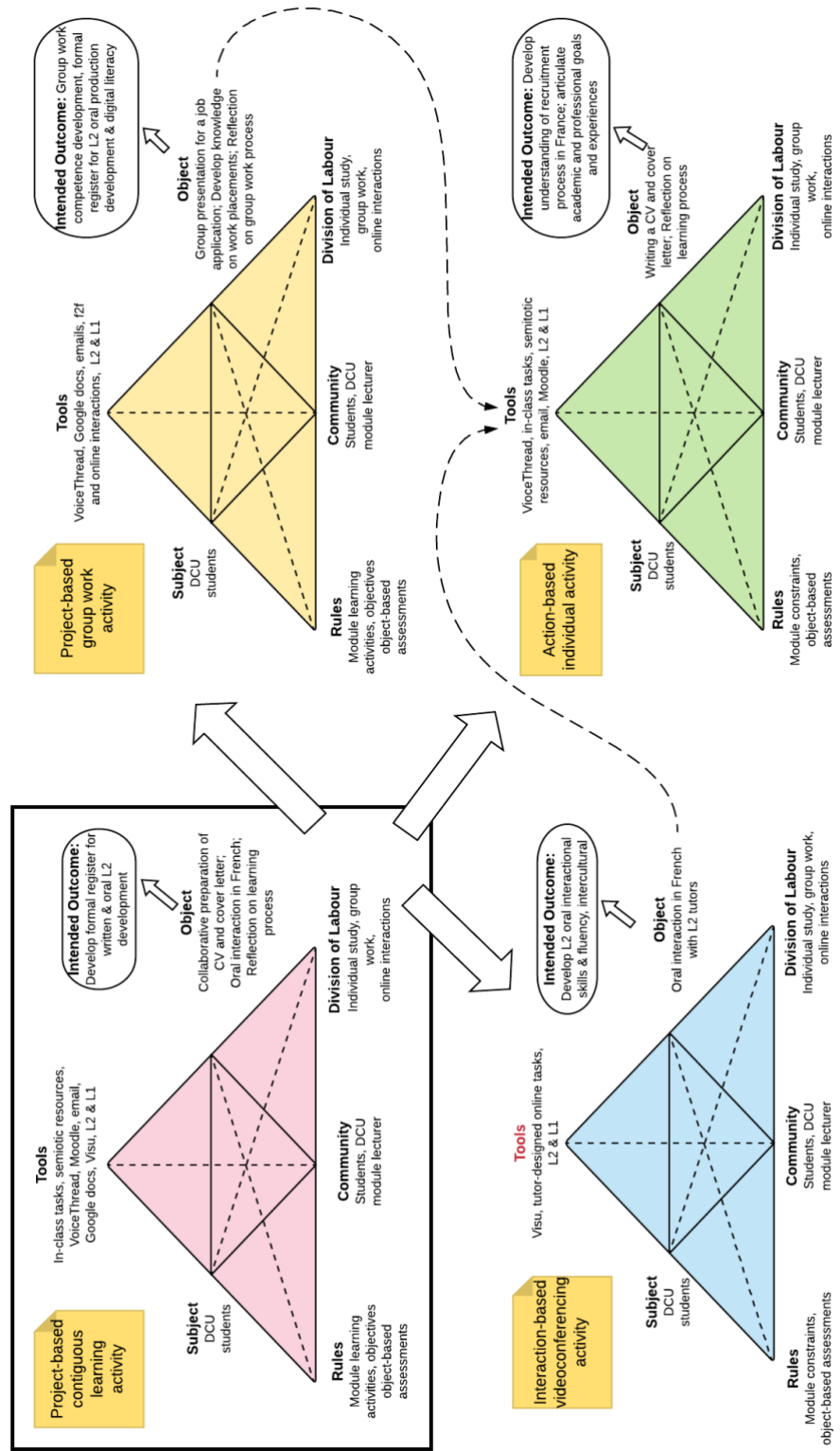
The total time allotted for the FR238 module (DCU) in the tutee curriculum was two slots of fifty minutes each per week. The VC interaction embedded in the module was attributed one of these two slots of about fifty minutes. Both slots were clustered together and scheduled on Tuesday afternoons from 1 p.m. to 3 p.m. so that the first hour of class in Dublin would coincide with the Lyon tutors’ timetabled 2 p.m. class (taking into consideration the time difference of one hour between Ireland and France). A term of 12 weeks in DCU stretches from mid-September to mid-December. Hence, the six weekly VC sessions took place from 15 October to 3 December 2013, with a two-week mid-term break between the second and third VC sessions.

DCU/tutee curriculum (activity theoretical descriptions):

Figure 4.1 on the following page illustrates the module with the help of Engeström’s CHAT triangles. It represents the Dublin module’s learning ecosystem as a network of activity systems. It shows the relations between the group work and the VC interactions that were supposed to facilitate (as tools) the students’ individual objectives of L2 development through the creation of personalised artefacts (CV, cover letter, VoiceThread reflective report). This is represented by the curved dotted arrows linking the objects of the group work and VC interactions to the tools of the individual work. Group work, individual study and online interactions are the module’s sub-activities that define its blended learning environment. These are represented by the blue, yellow and green activity triangles as independent and inter-dependent (sub)activities to understand the

activity system as a network of activities. The rules, community and division of labour that underpin the module's activities and pedagogical objectives remain the same through the course of the module activities. However, the tools for each (sub)activity are different as they mediate the goal-directed actions to attain a specific object. The (un)successful attainment of the object would give way to an (un)intended outcome. These are labelled for the main activity (pink triangle) and each (sub)activity triangles (blue, yellow and green) individually.

Figure 4.1: Dublin student module's learning eco-system (network of activity systems)



The interaction between the neighbouring activities in the tutee learning system is different from that of the tutor learning system as will be discussed in the following section.

4.2.3 Lyon's institutional, cultural and historical context

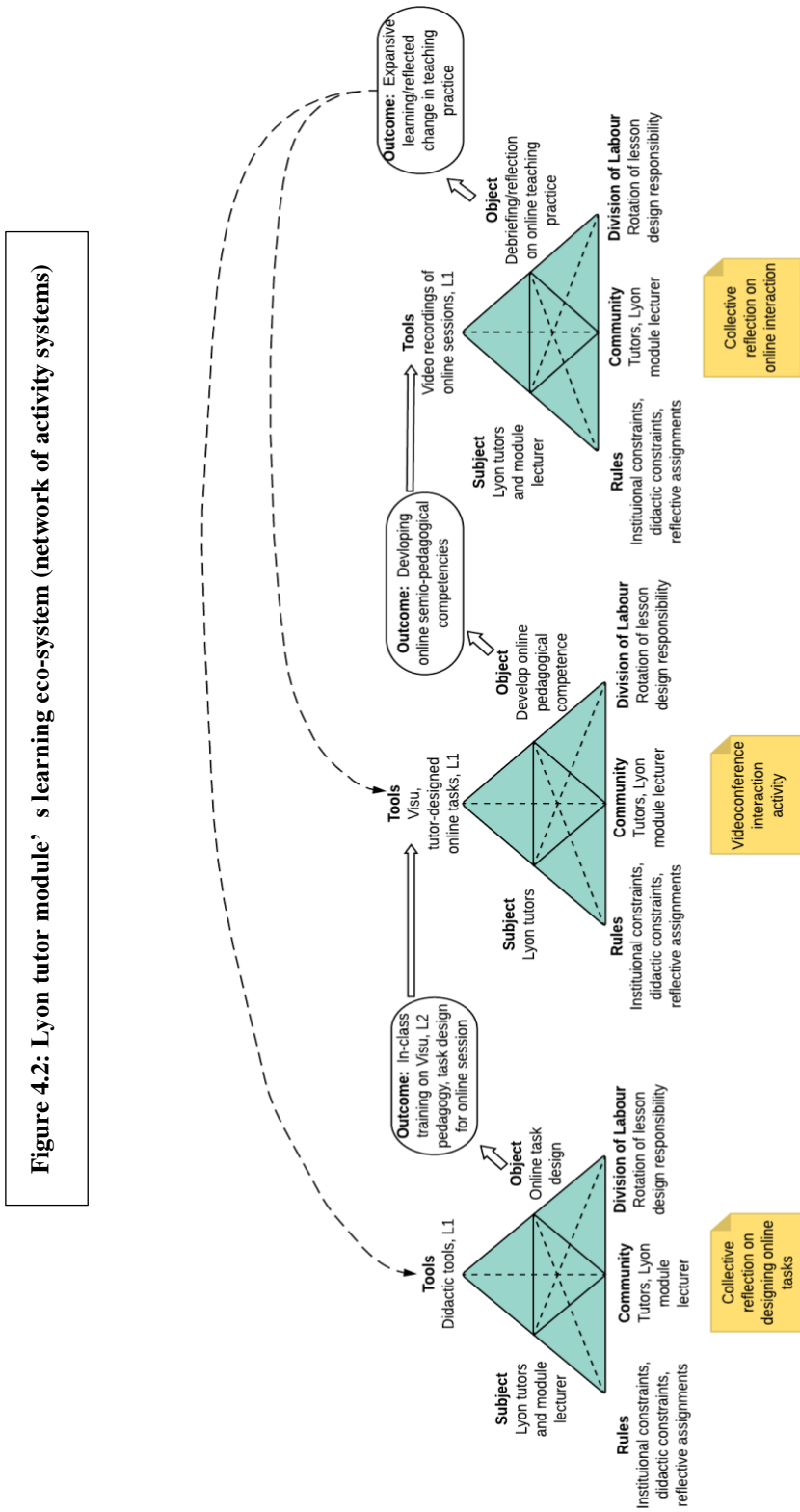
The Lyon Master's students interacted with the DCU tutees as part of a module entitled "*Enseignement du FLE en ligne*", i.e. teaching French as a second/foreign language online. The main objectives of the module were threefold:

- developing professional online teaching competences in terms of task preparation, online instantiation and feedback creation;
- engaging in individual and collective reflexive analysis of their online teaching praxis;
- understanding a few notions of pedagogical design in a technology-mediated environment.

It was embedded in a professional master's course entitled *Master Didactique du Français Langue Etrangère et Seconde*. Based on the principles of an action-based pedagogy, it was rooted in the legacy of a longstanding asymmetrical distant collaboration project entitled *Le français en première ligne* whose objective is to bring in hands on practical elements to an otherwise theoretical 'learning to teach' master's programme.

Lyon/tutor curriculum (activity theoretical descriptions):

In the context of the ISMAEL project, the Lyon curriculum syllabus is modelled in terms of CHAT triangles and its component parts in Figure 4.2 on the following page. The inter-connected objects and tools from one activity to another are labelled and so are the institutional rules, community and division of labour. The illustration of the tutor learning system shows its decomposition into three sub-activities or triangles that are networked together in an iterative manner as indicated by the dotted arrows. These three sub-activities are named as: co-designing of session plans, online tutoring and co-evaluation of their online pedagogical experience. Each sub-activity's object provides the tools for the next step. The object of co-evaluation is the last component of one iteration. Like a loop, this in turn feeds into the successive iterations of co-design and online tutoring. Thus, a system of collective and individual reflection is put in place for professional development and the creation of semio-pedagogical artefacts, i.e. the session designs.



Co-designing of session plans: First, in pairs, the tutors created a pedagogical sequence comprising different tasks adapted to the competence level and needs of the tutees. They then presented this pedagogical sequence to their tutor-colleagues and their module lecturer. Jointly, they brainstormed to discuss the pros and cons of the session plan. All suggested changes were incorporated and then submitted to the tutees' French module lecturer in the distant university, who either validated the session plan or suggested changes. Ideally, all the participants were involved in co-teaching in this phase as they engaged in co-design and co-critique of these tasks. Both horizontal and vertical division of labour occurred as the rules and norms flowed both in between tutor-peers as well as trickled down from their hierarchical superiors, the Lyon and Dublin lecturers.

Online tutoring: This was the central activity of the project. The master's students adopted the role of tutors of French for their distant target public. Tutors became aware of the differences in the gap between their intended object and the real outcome of the activity in the course of these interactions. At the level of moment-to-moment interactions, the learning object changed in order to adapt itself to the unforeseen breakdowns and tensions that emerged.

Co-evaluation: Following the online instantiations, the online interaction with both convergent and divergent objectives for tutor-tutee interacting systems then became the object of reflection and analysis in the form of co-evaluation in the debriefing sessions for tutors. Collective reflection on positive and challenging experiences was conducted in the presence of their module lecturer. The object was to reflect on possible changes based on personal experiences and perspectives in order to address student needs and overcome the systemic manifestations of contradictions.

4.3 LETEC in context: The ISMAEL corpus

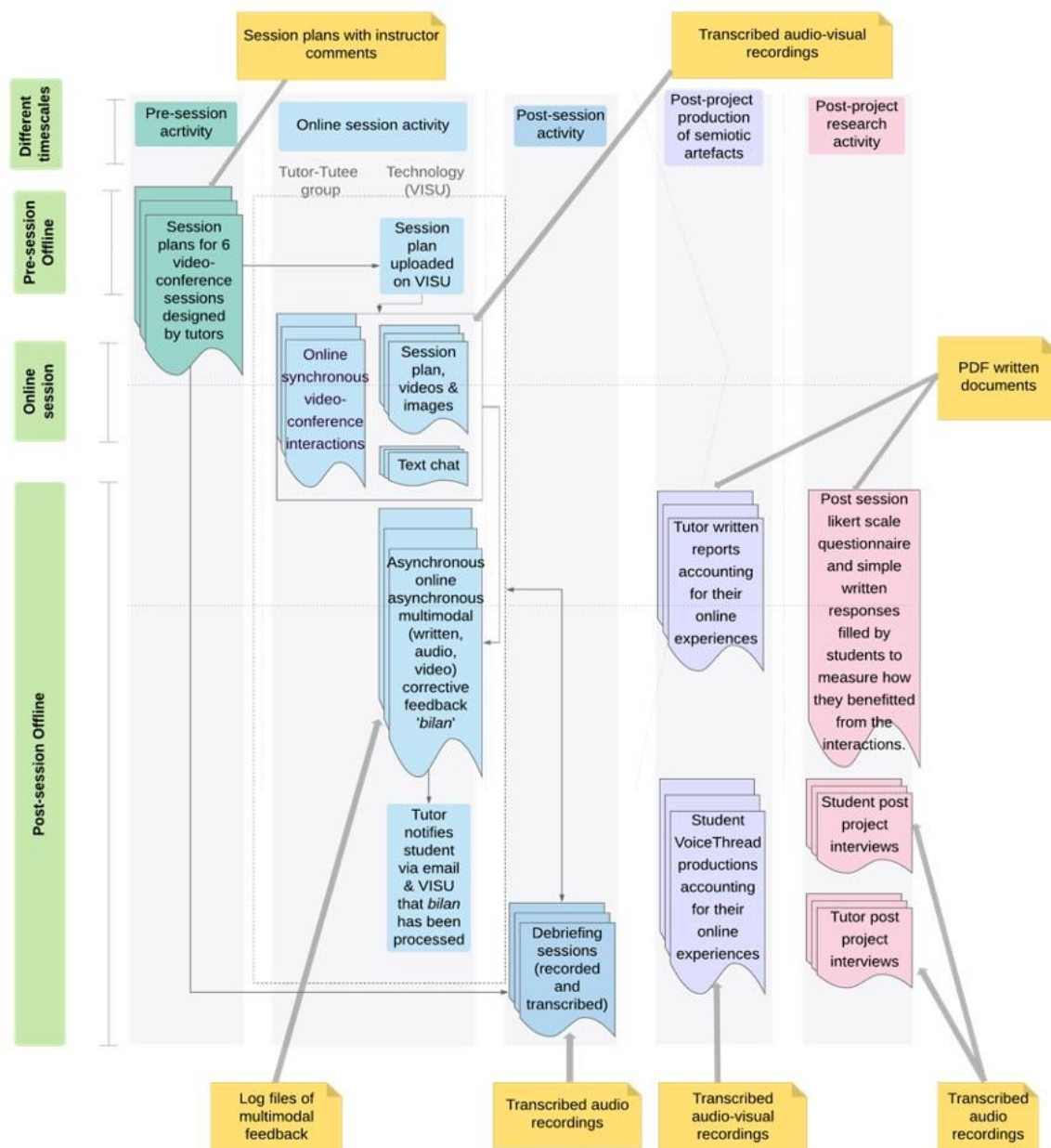
The broad principles of the design of the ISMAEL project were rooted in the line of action developed by the founders of *Le français en première ligne (FIL)*. With the help of data collected from the ISMAEL project, the ISMAEL corpus was created, following the LETEC conventions. How this protocol was put in place to facilitate its research agenda will be explicated here.

4.3.1 The ISMAEL project and data generation

The VC online session was the principal activity with the auxiliary pre- and post-session activities complementing the smooth progression of the principal activity. Figure 4.3 illustrates the iterative process of the principal videoconference activity (online session), interacting auxiliary activity systems (pre and post-session) and the data generated (in yellow labels) in the different phases of the ISMAEL project. The arrows linking these related activities indicate one round of the iterative

process. The same process was repeated each week for six weeks. The tutor activity of session design (pre-session) was followed by the principal activity of online interactions engaging both the tutor and tutee systems via the synchronous VC interaction. This was followed by (post-session) corrective feedback that was prepared and shared by the tutors asynchronously with their tutees. Another crucial tutor activity in the post-session phase was the debriefing/co-evaluation session where tutors discussed about their online interaction. The simple and critical ideas generated during these reflective phases influenced the creation of the next session design and the ensuing interaction, thus giving way to an iterative process in the tutor activity system that also called for the introduction of changes in the session designs of ensuing VC interactions.

Figure 4.3: Data generated in the different phases of the ISMAEL project.



Data collection:

As indicated in the yellow labels in Figure 4.3, a mix of direct observations of the online interactions, user interpretative reflections on these, and researcher-conducted semi-structured interviews were recorded at different stages of the ISMAEL project. They were stored in what comprised a multimodal LETEC named the ISMAEL corpus. A corpus of multimodal online interactions is a collection of recordings of interactions that take place in an online environment, in this study's case via desktop videoconferencing. Such data can be transcribed and annotated to analyse different modalities, such as speech, text, images, hand gestures, facial expression and gaze.

The ISMAEL corpus comprises a collection of transcribed recordings of synchronous and asynchronous online interactions that took place between all actors, i.e. learners, tutors and module lecturers. It also includes learner productions (VoiceThreads) and pedagogical session designs that were produced in the context of the online interactions. Data from the online activity was gathered in a non-obstructive, non-intrusive manner, with little or no interference in the observed data, e.g. online pedagogical conversations, session plans, etc. The interpretative reflections, on the other hand, solicited opinions, judgements or interpretations on user background, experience, satisfaction via post-session reflective reports, interviews, etc.

Session plans: The session plans comprise session objectives, sub-activities/tasks, key words and images (see Appendix B, p. 271). They were conceived and developed by tutors after incorporating feedback from the Lyon and Dublin lecturers. Incorporating the Dublin lecturer's feedback was in line with F1L's pedagogical mission to ensure that the designed sessions comply with the distant institution's needs and objectives.

Video recordings of online interactions: The majority of the ISMAEL data are composed of dynamic screen captures. The online interactions were recorded by the VC platform as soon as the tutors activated the recording button. An audio-visual file was created and stocked in the *salon de retrospection* (asynchronous salon) on Visu that could be later retrieved for data compilation.

Bilans: After every session, the tutors created a *bilan* on the VC platform (Visu) for their tutees. The *bilans* comprised written text, audio and video recordings as multimodal corrective feedback. They were created with the help of the audio-video recordings of the online interactions that tutors could replay after the session for the purpose of generating asynchronous feedback. These episodes were traced with the help of error markers placed by tutors during the interaction to pinpoint the erroneous areas for post-session reviews.

Debriefings: On the day following each VC session, the tutors engaged in face-to-face discussions with their peers and lecturer in a University classroom in Lyon to reflect on their online interaction experience. During these discussions, tutors shared chosen extracts of the video recordings of their online interaction based on two criteria: those moments where they successfully overcame an interactional disturbance or breakdown and those where they failed to do so. Along with their lecturer and peers, the tutors engaged in critical reflection and co-evaluation of their pedagogical practices, the constraints of the mediational means (session plans, online interactions, technology), the tutees' context, etc. and plausible solutions to help address these issues in the following sessions. These discussions produced rich interpretative analysis of the online interactions through the tutors' perceptual lens. The debriefing sessions also provided rich accounts of discursive manifestations of systemic contradictions. Qualitatively, they were moments of reflection on the designed and emerging affordances of the VC activity still fresh from the online session. Consequently, in terms of volume, five debriefing sessions of two hours each after every session guided by the tutor-lecturer amounted to a total of ten hours of discussion on what worked and what did not work for the tutors in the online interactions³. Reflections on their learning trajectories across a period of time potentially carried valuable information on the tutors' skills development as well and insights into "processes of learning" (Nunan, 1992).

Post-project participant reflection and interviews: Reflective post-project written reports of tutors' analysis of their online experience and oral VoiceThread productions of tutees' analysis of their online experience were also collected as tutee discursive reflections on their online experience, learning and development of competences. Furthermore, at the end of the project, semi-structured interviews were conducted in French with the Dublin tutees and Lyon tutors as well as the Dublin and Lyon lecturers who were also the principal architects of the ISMAEL project.

4.3.2 Applying the LETEC protocol to ISMAEL

The conventions used with regard to the collection, structuring and sharing of the data collected from the ISMAEL project, within the LETEC paradigm, to generate the ISMAEL corpus will be discussed here. As already mentioned, the inter-establishment asymmetrical VC collaboration and its subsequent recording and storage in a corpus served a research mission. This was based on the guiding principles of inter-establishment cross fertilisation through cooperation, coordination and shared reflection grounded in empirical research. The project team comprised experienced and

³ The first session was held after the second online interaction, hence, there were five debriefings and not six.

early stage researchers from both institutions in Lyon and Dublin and projected to expand and include additional post-graduate students as well as researchers from both institutions. The sharing of the corpus was stipulated to be undertaken in strict adherence to ethical guidelines and according to a Material Transfer Agreement adapted from the CNRS model.

Research project design:

Scholars unequivocally agree that the research objectives need to be determined as the first step of any research project design (Chanier & Wigham, 2016). In the context of the creation of a LETEC corpus for research purposes, a pedagogical scenario determining the multimodal environment, the participants and their activities and roles need to be clearly conceptualised too. Next, a research protocol is designed that identifies the variables that need to be investigated, such as the participants, the ethical considerations, the methods for data collection, the other researchers' roles etc. All this needs to be explained in a clear manner so that those who have not participated in the research design and wish to use the data sets at a later stage may understand the situation.

For the ISMAEL project, different data types had already been collected and the associated ethical considerations had already been validated before the commencement of this research project. These data sets are sensitive as they require the participants' informed consent to be video recorded, collected and shared for research purposes, and later disseminated to a wider audience. To this end, a plain language statement explaining the rationale and objectives of the project and requesting participants (tutors and tutees) of the videoconferencing project for their consent to collect their data and use, share and disseminate it for research purposes was elaborated (see Appendix A2, Appendix A3 and Appendix A4) and validated by the ethical bodies of the respective institutions (see Appendix A5 for DCU's ethical approval for the creation of the ISMAEL corpus as part of the ISMAEL research project).

Following this, all the Lyon tutors, without exception, gave their consent to be included in the corpus in the course of the interactions in October 2013. However, as L2 learners, the Dublin tutees could be considered to be a more vulnerable group as their video recordings featured more face-threatening situations and episodes with interlanguage hesitations, errors, etc. Hence, the tutees were asked to respond to a participation request only when the videoconferencing interactions were over, in December 2013, as by this time the tutees could make up their minds one way or another about sharing video footage of their interaction. Furthermore, the ethical request document designed for tutees was much more fine-grained and elaborate as compared to the one used for the Lyon tutors. It offered different degrees of anonymisation and participation

for the tutees in order to preserve their privacy while addressing the research project's objectives at the same time. These included:

- Anonymous data of tutees' screen captures of online interactions (including tutee image, audio, written text);
- Extracts of the above-mentioned data to be used in conference presentations with a clear image of the tutee;
- Extracts of the above-mentioned data to be used in conference presentations with a blurred image of the tutee;
- Extracts of the above-mentioned data to be published in research articles with a clear image of the tutee;
- Extracts of the above-mentioned data to be published in research articles with a blurred image of the tutee;
- Participation in interview in the near future with publication of anonymous extracts of interview in research articles.

All participants were also informed that they could opt out of the project participation/corpus at any time, even in the future. This would result in all their data to be immediately destroyed. This allowed the corpus designers to identify who could be included in the corpus, as it automatically eliminated participants who had not given their consent to their data being included in the research project.

Out of the nineteen Dublin tutees who participated in the online VC interactions, five tutees either refused to participate in the study or did not respond to the questionnaire. The other tutees gave their consent while requesting different degrees of anonymisation. While a few tutees were happy to share their images, others wanted their images to be blurred either only in published material or both in published material and conference presentations. All participants, were therefore, accorded pseudonyms (in accordance with their gender or cultural origin). Moreover, all names in all transcripts, quotations, and online and offline interactions (as well as onscreen and off-screen records) via text or asynchronous messages were automatically replaced with a numeric username with the help of a coding program. I signed a material transfer agreement and acquired a separate formal ethical approval from the DCU Research Ethics Committee to use the ISMAEL corpus (see Appendix A1). Once the low risk notification form received ethical validation, I could access the data sets that were shared only with authorised researchers on a password protected Box account. While using the data sets, the requirements mentioned above with regard to the participants' desired level of confidentiality had to be continually borne in mind while handling the data sets for new transcriptions, as well as making conference presentations and publishing

articles. Other challenges faced by researchers in the corpus compilation process with regard to synchronising the videos have been discussed in the following sections.

Data transcription with ICOR:

The video recordings of the online interactions from the ISMAEL project were collected as raw data that were edited, synchronised and transcribed. The verbal channel of the VC sessions in the ISMAEL corpus have been transcribed using the ELAN tool. A common framework (Convention ICOR) developed by the CNRS, Lyon 2 and ENS Lyon was adopted to transcribe the oral and vocal modes of the ISMAEL corpus. In order to ensure inter-transcriber reliability and validity, the ICOR convention imposes the specification of three levels of usage for transcription: the base level, the intermediate level, and the specialist level (my translation, ICOR convention, p. 1). The base level comprises verbal specifications on change of speaker, overlaps and pauses (indicating pause time interval). The intermediate level adds on the base level other features, such as vocal specifications and general remarks. The specialist level is defined by the research theme guiding the transcription and is specific to individual research aims.

Based on the ethical approval received from the tutors and tutees, the online interactions and productions of five triads and two dyads were anonymized and transcribed to be included in the ISMAEL corpus (see Figure 4.4). The tutors and tutees were grouped on an arbitrary basis to interact online for six weekly sessions with the dates, the session themes and duration of interaction, along with the names of the tutor and tutee dyads and triads, indicated in the table. The red dot that appears on tutor_Samia's third session and tutor_Victor's fifth session indicates that these sessions were recorded in a separate room (and not the usual language laboratory) for these two tutors. The separate room was equipped with external cameras that recorded the exterior view, that is the gestures and movements that were enacted outside the frame of the computer screen and could not be recorded by the inbuilt Visu camera.

Figure 4.4: ISMAEL corpus (Guichon, Blin, Thouésny, & Wigham, 2014)

| Teacher trainees | Learners | | Session 1 October 15 th French professional world | Session 2 October 22 nd Professional experience | Session 3 November 12 th Internship in Reims | Session 4 November 19 th Project management | Session 5 November 26 th Project implementation | Session 6 December 3 rd Job interview |
|------------------|----------|-----------|--|--|---|--|--|--|
| Adele* | Alannah | Catriona* | ☑ 43m48s | ☑ 40m55s | ☑ 33m03s | ☑ 34m27s | ☑ 41m04s | ☑ 35m55s |
| Emilie* | Aiden | Fiona | ☑ 22m50s | ☑ 33m00s | ☑ 24m08s | ☑ 25m37s | ☑ 30m29s | ☑ 24m12s |
| Samia* | Sean* | Angela* | ☑ 30m20s | Sean absent ☑ 34m34s | ⊙ 31m50s | ☑ 35m20s | ☑ 39m46s | X |
| Etienne* | Conor | Sophie | | | | ☑ 20m57s | | |
| Mélissa* | Ana* | Alejandra | ☑ 42m11s | ☑ 39m24s | ☑ 37m03s | ☑ 30m13s | ☑ 32m28s | ☑ 35m53s |
| Séverine* | Naomi | | | X | | ☑ 34m47s | | |
| Victor* | Liam | | ☑ 33m25s | Session with Conor ☑ 27m46s | ☑ 29m18s | ☑ 34m00s | ⊙ 29m01s | X |

☑ Session transcribed
 X Session unavailable

* Interview
 ⊙ Exterior view
 Total time transcribed: 15h, 23m, 07s

📅 Lesson plan
 🔄 Debriefing the next day

The generation of the ISMAEL corpus facilitated various small-scale studies (Guichon and Tellier, 2017; Satar & Wigham, 2017) as well as two theses that investigated the impact of multimodal feedback provision on language development (Vidal, 2018) and the use of paralinguistic cues for lexical explanation (Holt, 2018). As already mentioned earlier, this thesis is part of the ISMAEL project's joint research agenda. Although, I did not directly participate in the implementation of the ISMAEL project or the creation of the ISMAEL corpus, the data sets for this thesis or the distinguished corpus for this thesis has been derived from the ISMAEL global corpus. Moreover, new raw data sets/video recordings were edited, synchronised and transcribed by me following the ICOR conventions for this study. These were added to the ISMAEL corpus at a later stage, thus, contributing to the enrichment of the ISMAEL corpus.

Synchronising video data:

The audiovisual interactions were recorded by the videoconference tool. They were stored in separate files for each of the participants. For example, for one triad involving one tutor and two tutees, each of the three participants' recordings were stored in a separate file. The three separate files had to be synchronized into one in order to connect the completely disconnected utterances into a continuous interaction between three participants so that each turn-taking corresponded perfectly with the turns of the other two participants. Then, the text chat messages retrieved

separately were synchronized with the video. Holt⁴ (2018) used Final Cut Pro, an expensive and complex editing tool designed for media professionals to edit and synchronise the videos. His choice was guided by the availability of the tool and the expertise available in his research laboratory to help him use the tool. I also contributed to the synchronization (using iMovie) and transcription of video data for the ISMAEL corpus. A distinguished corpus for this thesis was chosen from the ISMAEL global corpus.

4.3.3 Distinguished corpora

The re-use of LETEC data usually involves choosing a subset of the global corpus guided by some epistemological principle based on specific research questions. The researcher then proceeds to transcribe the verbal mode to produce the first level of multimodal transcription then annotates the other levels of the multimodal interactions. The granularity of subsequent multimodal annotations depends on the research questions of the relevant study. This produces a new smaller set of data which is then assembled into a new LETEC of a distinct type called a distinguished corpus. A distinguished corpus is a subset of the global corpus that is extracted to address specific individual research interests (Reffay et al., 2012). Data analyses is performed on this distinguished corpus.

For their doctoral theses, Holt (2018) and Vidal (2018) have derived their distinguished corpora from the global corpus taking into consideration their specific research needs. Other subsets from the ISMAEL corpus have been created, annotated, and analysed for small scale research studies, such as creating online pedagogical presence (Guichon, 2017), conducting lexical explanations (Holt & Tellier, 2017), requesting and providing pedagogical help online (Duthoit & Colòn de Carvajal, 2017), providing online feedback (Vidal & Wigham, 2017), favouring interactional engagement of learners (Dejean & Sarré, 2017), coping with unexpected technical problems during online exchanges (Azaoui, 2017), online teacher training (Cohen, 2017), and reflections on online teacher practice (Cadet & Cicurel, 2017). The choice of data sets to be included in the distinguished corpus to address one's research questions in a way that would be feasible and not overwhelming and at the same time representative of the pedagogical scenario is crucial.

Sampling in qualitative studies is said to be purposeful, wherein the goal is to understand a phenomenon rather than to enable generalisations from study samples to populations (Yamagata-

⁴ Ben Holt is a researcher who was part of the Lyon ISMAEL team. He was in charge of synchronising video and audio files and transcribing them. He was also in charge of training other researchers and Master's students to transcribe the synchronised video files. He has completed his doctoral research entitled *Séquences lexicales d'explication dans l'enseignement de français par visioconférence : une approche multimodale* (Holt, 2018) (Sequences of lexical explanation in teaching French via videoconferencing: a multimodal approach), using the ISMAEL corpus.

Lynch, 2010). “Information-rich” cases are selected for in-depth study to provide the information needed to answer the research questions. For this thesis, it was important to choose those cases that were of significance from an affordance perspective. For this, I chose a distinguished corpus, that is a smaller representative version of the global ISMAEL corpus, while engaging in numerous exchanges with other transcribers during the course of the transcription to ensure inter-transcriber validity and reliability, and its subsequent inclusion in the ISMAEL corpus. This study has, therefore, in turn enriched the ISMAEL corpus.

For this study’s triadic interactions, once the multiscope for the recorded online interactions was obtained as one file, the three .wav audio files were exported together with the merged video .mp4 file and the associated text chat messages into ELAN (EUDICO Linguistic Annotator, <http://www.lat-mpi.eu/tools/elan/>) to facilitate the transcription of the verbal channel. ELAN is an open-access multi-level multi-participant transcription and annotation tool that allows to create, edit, visualize and search annotations for video and audio data (Wittenburg, Brugman, Russel, Klassmann, & Sloetjes, 2006). Its inter-operability functionality allows one or multiple user(s) to rework on the transcription and add multiple layers of transcription, for example utterances, tone, facial expressions, gestures, etc. for the same video segment for multimodal analyses. Nevertheless, ELAN is less functional on Macs and does not produce transcripts that are easy to read off the screen. In addition, although ELAN has a number of print and other output options, it does not generate the information contained in the ELAN transcript itself adequately, for instance, the precise notation of overlap recorded in ELAN is lost when the transcript is converted to formats that fit an A4 page (Pavlidou, Kapellidi, & Karafoti, 2014, p. 70).

The multilayered annotation system for different participants allows an analysis of the simultaneous enactments of actions and operations by different participants in the course of an online interaction. In this study’s context, this allowed to identify the technological, linguistic and pedagogical actions and operations and the breakdowns and constraints encountered by the participants that offered useful insight into the online enactments of the VC tool’s and learning environment’s affordances. These will be described in the next chapter following the presentation of this thesis’s unit of analysis.

4.4 Defining the unit of analysis for this study

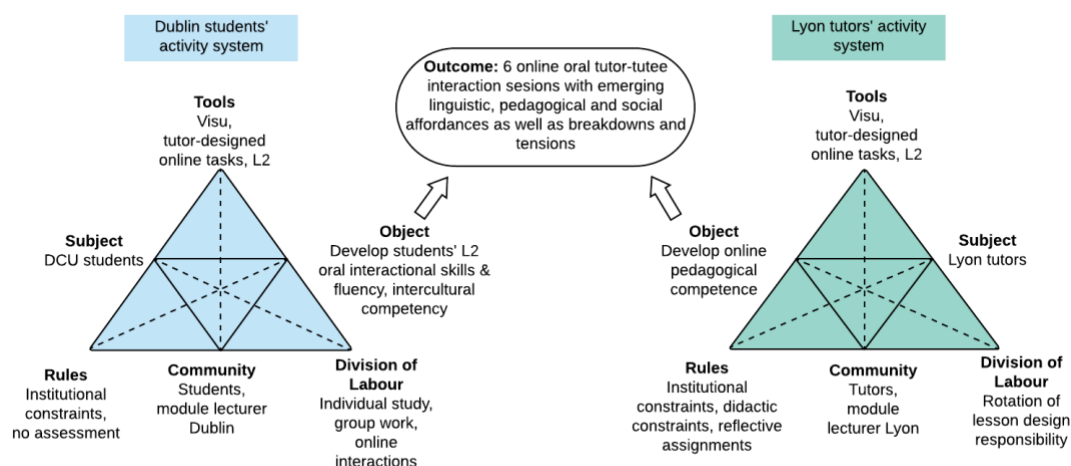
Engeström (1999) proposes that the unit of analysis in CHAT is delimited by the activity system. It can be defined at any level of activity. This can range from institutional policies to curriculum design to neighbouring subjects’ pedagogical choices that influence the activity system (Lim & Hang, 2003) or even micro level interactions (Engeström et al., 1999; Fichtner, 1984; Nardi,

1996) (Sannino, Daniels, & Gutiérrez, 2009) etc. Blunden (2010) proposes the ‘project’ as a reasonable unit of analysis for CHAT allowing a holistic picture of the influences of different elements interacting within the activity that in turn is influenced by other activity systems in the entire learning ecosystem.

4.4.1 Delineating the boundaries of the unit of analysis

The historical evolution of the students’ and tutors’ respective systems, that is, the French for Academic Purposes module in DCU and the module *FLE en Ligne* in Lyon have their respective object or motive of preparation for students. The DCU module’s object was motivated by the dual objects of preparing students for their study abroad programme in a French Business school and their professional work experience in France and after graduation. The University of Lyon module’s object was motivated by the object of offering a professional and practical component to the training for future teachers of *FLE*. Both the geographically distant spaces and activity systems were interconnected via the ISMAEL project. The online VC interaction activity within the ISMAEL project constitutes a complete activity system in itself. It is the principal activity in this study and its unit of analysis as illustrated in Figure 4.5. This unit is composed of two interacting activity systems, i.e. the Dublin and Lyon activity systems. It encapsulates VC as the principal activity as well as the (sub)activities of each system.

Figure 4.5: Interacting activity systems as study’s unit of analysis



The interacting activity system can be subdivided into component activity systems that will be delineated in the next section. Additionally, it is also seen as interacting with a network of other activity systems on each side (Dublin and Lyon) as represented in Figure 4.1 and Figure 4.2, that may in turn exert a certain influence on the VC activity itself.

Hence, in line with the third-generation activity theory which represents two or more interacting activity systems as the unit of analysis, the tutor-tutee interacting activity systems at the macro level of the ISMAEL project comprising the six weekly online sessions delimits the boundaries of this study's unit of analysis. This aims to "understand dialogue, multiple perspectives, and networks of interacting activity systems" (Engeström, 2001, p. 135) in a holistic manner. It adapts Engeström's triangle that proposes to modelise CHAT's understanding of human activity and analytic tools to examine the tutor-tutee interaction in terms of activities, actions, and operations, and inherent tensions and contradictions resulting in change and potential development. The subjects are the student group and tutor group respectively. They use the same tools (videoconferencing platform Visu, tutor-designed pedagogical tasks, and French as L2) during the online interactions and share a mutually benefitting collaborative design as the interacting systems' desired outcome. However, they may have distinct social-mediators and different objects, division of labour, and norms governing their respective activities, actions and operations.

4.4.2 System's multiple space and time scales

It has already been argued in Chapter 3 that both from a social-ecological and an activity-theoretical perspective on human activity, learning and development take place through interactions between multiple spaces and timescales. Engeström suggests that most actions are not predictable, and the most well-planned ones may be rife with failures, breakdowns and unexpected innovations. These are very difficult to explain if one stays at the level of actions only. However, an analysis of the activity system in its interaction with other activity systems may shed light on the underlying contradictions that trigger those breakdowns and innovations. For this, it is advised to zoom out from the analysis of individual actions to the analysis of their broader activity context and zoom back in again (Y. Engeström et al., 1999, p. 32). In other words, it is concerned with examining the whole dynamic ecology of technology rich complex learning environments from within and from the outside. Figure 4.6 on the following page illustrates the interacting activity systems or the study's unit of analysis at the macro, meso and micro levels of the learning ecosystem.

The question is where does one set the micro, meso and macro levels and which data sets to analyse in order to operationalise the zoom in and zoom out analysis: society, institution, L2 programme module, distinct task units within the module, individual or collective activities within the task unit, individual actions that compose these activities. The micro, meso and macro levels can be defined progressively at any reasonably observable point of the continuum. Reasonable for this study means not getting down to the microscopic level neither a macro spatial level. The

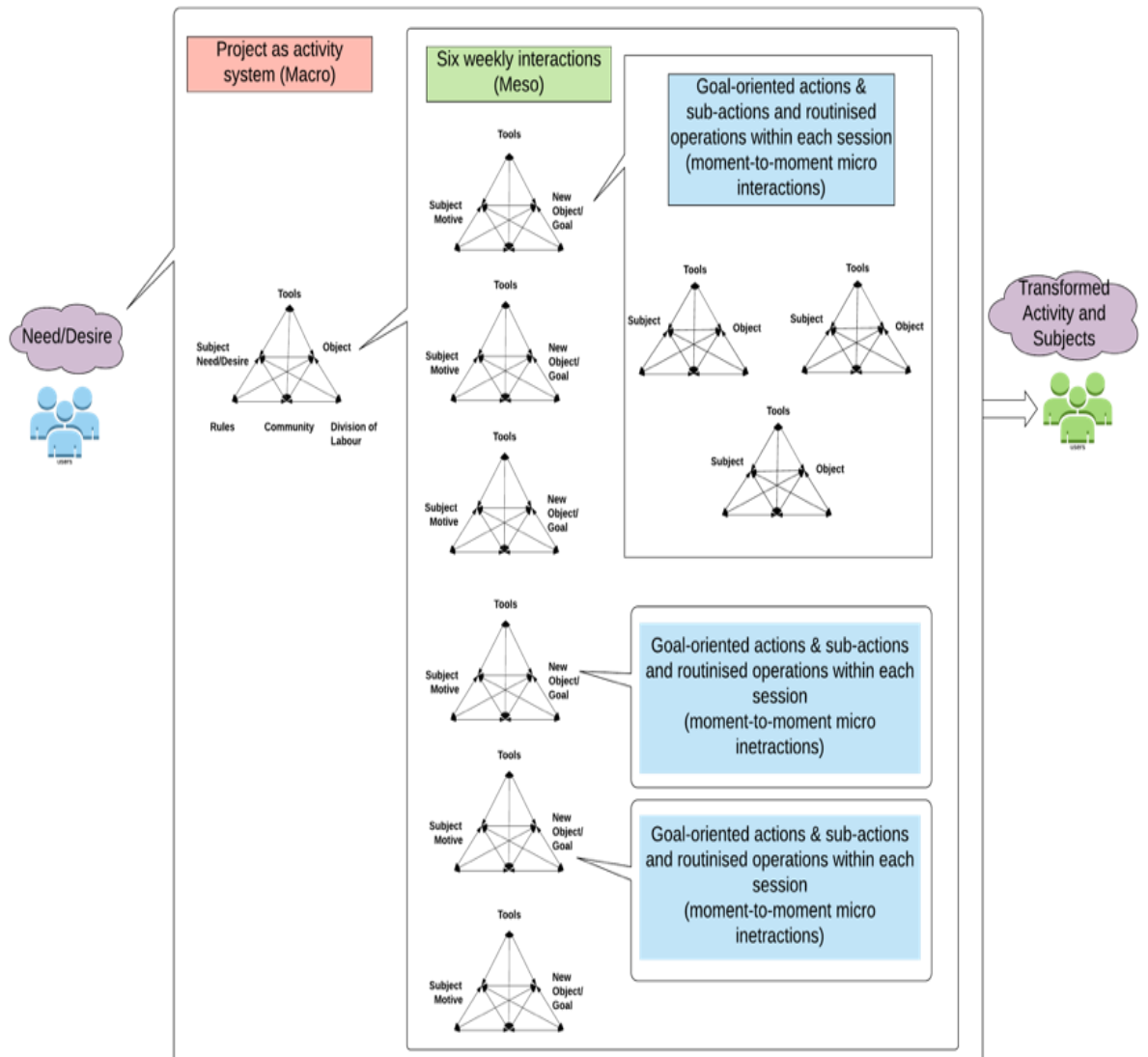
reasonable is determined by the rich data already present in the ISMAEL corpus too. These macro, meso and micro levels were identified in the following manner for this study.

Macro level: The pre and post VC-session activities combined with the online synchronous VC-sessions embedded within the modules for both DCU and Lyon activity systems in the learning ecosystem constitute the macro level. This also composes the study's unit of analysis.

Meso level: Each weekly iteration of the VC interactions constitutes the meso level for this study. This is complemented by the pre-session planning and post-session debriefings where the tutors dialectically interact within their own activity system. The dialectical activity in the debriefings affect the tutee activity system as tutors implement the collectively generated reflections and innovative actions in future instantiations of the principal activity.

Micro level: Moment-to-moment interactions within each individual session are viewed as the study's micro level. Both activity systems interact didactically and dialogically here. At this level, each tutor-tutee group carries out goal-directed actions, sub-actions and micro level operations.

Figure 4.6: Macro, meso and micro levels of the unit of analysis. Adapted from Blin (2016b).



4.5 Discussion and Conclusion

This chapter presented the study's rationale for using CHAT and its epistemological tools that allow to identify discourse in relation with activity, actions, operations and systemic disturbances or tensions. In other words, CHAT is used to support an analysis of subject-object positive and negative relations at different micro, meso and macro temporal levels of the environment rather than an analysis of mainly intersubjective relations as facilitated by conversation analysis (CA), discourse analysis (DA) and critical discourse analysis (CDA). This leads the relevant research questions that seek to identify the designed and emerging micro and meso level interactional affordances (technological, pedagogical and linguistic) in asymmetrical VC-mediated learning environments against the backdrop of macro level components and constraints.

Following this, the context of an inter-institutional research project on asymmetrical VC between Dublin and Lyon as activity systems and the consequent creation of a multimodal corpus (ISMAEL) was presented. The data types collected guided by the LETEC methodology and using cutting-edge technology, are described to facilitate the analysis of such learning environments. Finally, a zoom in and zoom out analysis to capture the dynamic transformation of the activity by investigating its component actions and operations, systemic tensions and disruptions in between and within the interacting activity systems as unit of analysis is proposed. How this is concretely operationalized in the context of this study will be discussed in the following chapter.

Chapter 5 Context and Methods

The previous chapter presented the rationale and research design for this study and argued in favour of CHAT and its epistemological tools to address the study's research questions. It laid out the epistemological and methodological considerations involved in creating a multimodal LETEC corpus (the ISMAEL corpus in this context) and sharing it with the research community to investigate different aspects of a VC-mediated learning environment. It also presented the institutional and historical contexts of the Dublin and Lyon universities and defined the study's unit of analysis as the Dublin-Lyon interacting activity systems that encompasses the principal VC activity as well as the neighbouring activities for both the tutor and tutee systems.

This chapter explicates the methodological choices that were made in order to operationalize the CHAT analytical tools in this study's context. The hierarchical concept of activity, actions and operations (Leontyev, 1978), as discussed in Chapter 3, are delimited in this study's unit of analysis in order to zoom in and zoom out to identify the changing enactments of the designed technological and pedagogico-socio-linguistic affordances at the micro moment-to-moment tutor-tutee interaction and session design level due to the impact of the needs of the macro project and institutional contextual level. For this, a distinguished corpus is especially created from the ISMAEL corpus, comprising both action-based discursive data (from four triads' online interactions) and reflexive discursive data (of all participants). Finally, the methodological choices made to operationalise the CHAT analytical tools to identify and code the designed and emerging activities, actions, operations, breakdowns and tensions in the data sets, using the qualitative analysis tools ELAN and Atlas.ti, and the categories generated to address the research questions are elucidated.

5.1 Epistemological considerations for the distinguished corpus

Every week, new learning objects are determined with newly designed tasks based on the tutors' collective review of the compatibility between previous tasks and students' needs. The ensuing activity's component community-collective, interpersonal and personal goals are enacted. Every week, a changed, ideally more enhanced object (as reflected upon) continues to emerge in iterative cycles for six successive weeks. The designed objects in the session plans are themselves products of the tutors' cultural and historical understanding of pedagogical interactions. This implies that although this thesis does not follow a CA approach, it does engage with some of its terms and concepts to underpin its explanations when analysing the verbal mode, such as markers, pauses, turn-taking, turn-giving, etc.

5.1.1 Identifying activity, actions and operations

An analysis of the activity's actions and operations is an integral part of the study of the action possibilities of an activity and also help reveal the internal composition of the activity and its inherent breakdowns, innovations and contradictions. For this, the actions and operations need to be identified first in the principal activity of VC-mediated online tutor-tutee interaction. Hence, the online interactional discourse mediates the principal activity in this L2 learning system. Bakhtin (1987) introduced utterance as a unit of speech communication and Wertsch (1991, p. 205) interprets utterance as "a form of mediated action". This study argues that based on the object of the online tutor-tutee interaction, utterance chunks of tutor-tutee exchanges can be annotated as forms of mediated actions. This perspective corroborates the position that utterances as actions comprise both a functional and a semantic content in them (R. Engeström, 1995).

The object-oriented activity is decomposed into specific actions elicited by conscious goals that develop during the moment-to-moment interactions. These goal-directed actions form the main component parts of the activity and contribute in gradually shaping the activity. The character of these actions is highly unpredictable, spotted with unexpected breakdowns, tension, focus shift and potential innovation. Consequently, unplanned actions may emerge that attempt to overcome the system's tensions and disruptions. A study of the dynamic phenomena of changing actions and systemic disruptions, at this moment-to-moment interaction level requires the researcher to zoom in. Furthermore, an action may be transformed into an operation capable of realizing various actions (Leontyev, 1978 p. 104). These expected relations and divergences in action relations are annotated as they emerge in the course of the online interactions. This will allow this study to enquire into why and how the tutor and tutee use a particular set of actions and what environmental or contextual needs trigger these affordances and to what effect. Also, what changes do these perception-action cycles entail in the designed affordances thus giving way to emerging affordances.

In CHAT, the participants are themselves asked to participate in the research analysis by looking at and commenting on the initial data and analysis (Engeström, 1999, p. 182). In this study's context, episodes of reflection and interpretation of video-recorded work sequences take place in the debriefing sessions (as shown Figure 4.3). The instructor/researcher is interested in the tutors' lived experiences of the systemic disturbances and interactional breakdowns, and their practical, material generalisation of novel solutions. This aims to address a developmental component for the tutors' professional training. Moreover, the dialogue and collective reflection generate a new

layer of data that feeds the project's research component. For the tutees and tutors, those concepts and models form tools that are either short-lived or stabilise and spread into other activity systems.

In the exploration of particular vocabularies used in these pedagogical interactions from a discursive psychology perspective, the idea is to code goal-oriented linguistic actions and technological operations or their multimodal manifestations as affordance enactments with the view to achieve some type of linguistic or pedagogical function/object that motivates the VC activity. Activity theory's understanding that different discourses struggling to fix meaning are open to 'deviations' (Engeström, 2014) or change which may result in expansive learning (Engeström, 1987) is implemented here. Identification of designed and emerging affordances and their realisation (or not) through analysis of systemic tensions, deviations, breakdowns, expansion, etc. (Engeström, 2014) is carried out.

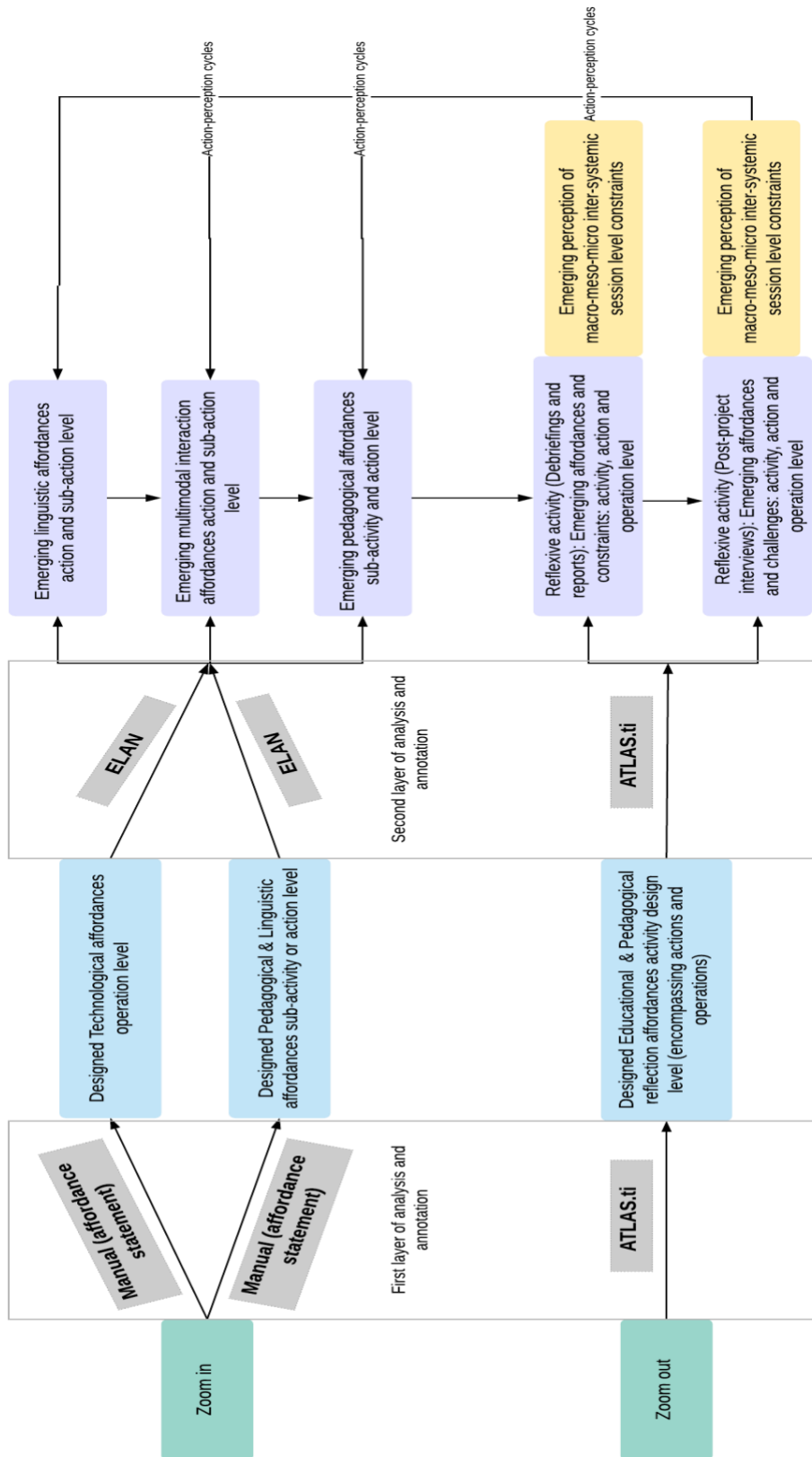
5.1.2 Zoom in, zoom out and synthesis research methodology

A 'zoom in, zoom out and synthesis' research methodology is adopted to address this study's research questions as they seek to define action possibilities or VC affordances at different levels of the VC activity. This, therefore, calls for an ecological approach (macro, meso, micro) and a hierarchical (Leontyev, 1978) and systemic understanding of the activity of the interacting systems (Engeström, 1987).

The data analysis was undertaken following a first and second layer of analysis as illustrated in Figure 5.1. The analysis first undertook an interpretative coding/annotation of the designed technological, pedagogical and linguistic affordances (i.e. the functionalities of the Visu platform and session designs). These were identified and labelled manually with the help of an affordance statement (see section 2.2.2). Designed technological affordances and pedagogico-socio-linguistic action possibilities at the meso session level were identified in this first step of analysis of the tool and activity design.

Following this, the analysis zoomed in to the micro level moment-to-moment online VC interactions. The online instantiations of the designed pedagogico-socio-linguistic and technological affordances were analysed with the help of a second layer of interpretative coding/annotation using ELAN. Pedagogico-socio-linguistic and multimodal sub-actions and operations were identified that may or may not have followed the designed session plans. Both positive and negative unexpected interactions or interaction breakdowns were also observed. The online instantiations opened the window to new emerging multimodal affordances and innovative actions over the course of the six sessions.

Figure 5.1: Data analysis (zoom in, zoom out and synthesis)



Subsequently, the analysis zoomed out from the micro interaction level to the participants' perception and reflection level. An interpretative coding/annotation of participants' (tutors, tutees, lecturers) perceptions was undertaken using the qualitative analysis tool Atlas.ti. It sought to identify the interaction breakdowns and systemic tensions as perceived by the participants in the VC interactions and triangulate the perceptions with the actual online interactions. Another layer of interpretative analysis sought to identify the emerging ideas and tools to circumvent these manifestations of contradictions (interaction breakdowns and systemic tensions) and their successful or unsuccessful online instantiations.

The data types listed above have already been described in the previous chapter as data collected within the ISMAEL project (section 4.3.1, p. 80). Here, they are referred to as representing different genres that address specific purposes of analysis in this study's context. These data types were chosen based on the study's rationale to investigate the designed affordances, their online enactment as positive and negative affordances, and the emergence of new affordances following individual and collective reflection.

5.2 Distinguished corpus and participants for this study

The distinguished corpus for this study is a subset of the ISMAEL corpus and comprises both online and offline participant productions and semiotic artefacts as well as post-project researcher-elicited data. Four tutor-tutee triads' VC interactions were chosen as the principal activity data sets for this study with the aim to observe the enactment of pedagogical, linguistic and technological action possibilities, the emerging manifestations of contradictions in terms of interaction breakdowns and tensions, and the ensuing actions that emerged to circumvent the systemic tensions. The six weekly online VC sessions allowed to observe the emergence and transformation of these actions over a timescale of six weeks.

5.2.1 Participants in the distinguished corpus

A few methodological choices were made to select the distinguished corpus for this study. A preliminary study revealed an interesting component of these pedagogical interactions, that is the tutor-tutee 'triad' where one tutor interacted simultaneously with two tutees. Preliminary observation of the data sets revealed that engaging with two tutees during the VC sessions was perceived by tutors as more challenging than engaging with one tutee only. The interaction breakdowns in dyads (one tutor and one tutee) were not only more exacerbated in triads but also led to interesting complex interactional dynamics that were *a priori* absent in dyadic interactions. Moreover, instances of dyadic interactions were also present in the triads when one of the tutees went missing (due to technological breakdowns). Therefore, the choice was made to study the

interactions of four tutor-tutee triads for the same designed tasks over a semester long timescale (with multiple synchronous spaces). Hence, four tutor-tutee triads' online VC interactions were chosen for this study, as listed in Table 5.1 below.

Table 5.1: Tutor-tutee triads selected for this study

| Triad | Tutor | Tutees |
|-------|-----------------------|---|
| 1 | Adele _{TR} | Alanna _{TE} and Catriona _{TE} |
| 2 | Emilie _{TR} | Fiona _{TE} and Aiden _{TE} |
| 3 | Samia _{TR} | Angelate _{TE} and Seante _{TE} |
| 4 | Melissa _{TR} | Alejandra _{TE} and Anate _{TE} |

The tutees from the Irish University were around 19 years of age. The Lyon tutors' ages in this corpus varied from 25 to 30 years. Adele_{TR} (30 years) was the oldest and the most experienced tutor in the corpus with two years' experience teaching *FLE* (French as a foreign language) at a private language institute outside France, while Emilie_{TR}, Melissa_{TR} and Samia_{TR} had had short stints giving French tuitions in the face-to-face context. The tutees for this study came from a Business studies background except Alejandra_{TE}, an Erasmus exchange student of Translation studies from the Canary Islands who had selected this module as an optional subject. Alanna_{TE}, Catriona_{TE}, Seante_{TE}, Fiona_{TE} and Aiden_{TE} were Irish and had pursued their primary and secondary education in Ireland. Three tutees in the corpus, Anate_{TE}, Angelate_{TE} and Alejandra_{TE} were Mexico-Canadian, German and Spanish respectively. Anate_{TE} and Angelate_{TE} were enrolled as Business students in the University and followed the same program as their Irish counterparts. The distinguished corpus is demarcated in the ISMAEL corpus by the red rectangular frame (see Figure 5.2). It is noteworthy that tutor Samia_{TR}'s sixth session shows a cross indicating that it had not been recorded due to technical problems. The red dot in Samia_{TR}'s third session indicates that for this particular session, Samia_{TR} was placed in a special room with external cameras to record her body movements that were enacted outside the frame of the webcam.

Figure 5.2: Distinguished corpus for this thesis

| Teacher trainees | Learners | | Session 1 October 15 th French professional world | Session 2 October 22 nd Professional experience | Session 3 November 12 th Internship in Reims | Session 4 November 19 th Project management | Session 5 November 26 th Project implementation | Session 6 December 3 rd Job interview |
|------------------|----------|-----------|--|--|---|--|--|--|
| Adele* | Alannah | Catriona* | ✓ 43m48s | ✓ 40m55s | ✓ 33m03s | ✓ 34m27s | ✓ 41m04s | ✓ 35m55s |
| Emilie* | Aiden | Fiona | ✓ 22m50s | ✓ 33m00s | ✓ 24m08s | ✓ 25m37s | ✓ 30m29s | ✓ 24m12s |
| Samia* | Sean* | Angela* | ✓ 30m20s | Sean absent ✓ 34m34s | ⊙ ✓ 31m50s | ✓ 35m20s | ✓ 39m46s | X |
| Melissa* | Ana* | Alejandra | ✓ 42m11s | ✓ 39m24s | ✓ 37m03s | ✓ 30m13s | ✓ 32m28s | ✓ 35m53s |
| Severine* | Naomi | | | X | | ✓ 20m57s | | |
| Victor* | Liam | | ✓ 33m25s | Liam absent. Session with Conor ✓ 27m46s | ✓ 29m18s | ✓ 34m00s | ⊙ ✓ 29m01s | X |

✓ Session transcribed
 x Session unavailable
 * Interview
 ⊙ Exterior view
 Lesson plan
 Debriefing the next day
 Total time transcribed: 15h, 23m, 07s

5.2.2 Anonymisation of ISMAEL participants and ethical considerations

A crucial part of the research protocol involving two institutions and multimodal data comprising mainly audio-visual data is seeking ethical approval from the respective institutions. Additionally, subjective methods of data collection, such as, interviews, discussions, or questionnaires required the participants' prior informed consent to participate in the same. Informed consent forms were prepared by the two project leaders/ module lecturers from DCU, Dublin and Université Lyon 2 (see Appendices A2 to A5, p. 261-270). LETEC participants and their productions were selected to be part of the corpus and the ensuing research studies were based on their informed consent. Participants were informed of the potential research benefits of the videoconference interactions they had participated in and were requested to give their consent to reuse and share data related to their anonymized person and productions for research purposes. Special emphasis was laid on the specific measures to be undertaken to anonymise their person and productions in the corpus especially in relation to their image. Varying degrees of image anonymity were specified for the audiovisual data with the following options: conference presentations displaying clear or blurred image of student; written publications displaying clear or blurred image of student; publication of their anonymized productions in research journals. The tutors and tutees were also requested to participate in post-project interviews. All these options were carefully articulated in simple

written language in order to avoid any confusion or misunderstanding. Related rights of the participants to give or refuse consent or withdraw at any stage from the corpus project, not only before the compilation of the corpus but also at a much later stage, even after the corpus was formed, were also clearly expressed. Only those participants who gave permission to include their images and productions were included in the corpus.

Obtaining the participants' informed consent to collect objective and subjective data is a crucial step for any LETEC-based research endeavour. Only when permission has been granted by participants can the research team engage in responsible and ethical procedures to start collecting data. It is indispensable that all data collection be strictly guided by the constraints imposed by the participants with regard to the use of images and productions in the corpus. Once the aforementioned ethical criteria have been met, the next step involves making decisions regarding the choice of license for the release of the corpus and the choice of the repository for its archiving. In ISMAEL's case, all corpus data and documents were stored online in a password protected Box account (<https://app.box.com/folder/0>).

In line with the LETEC convention norms, a low risk ethical clearance from the Dublin City University, Research and Ethics Committee was first sought in order to re-use the ISMAEL corpus (roughly 50 hours of recording) for the purpose of this study (see Appendix A1, p. 260). Once this was acquired and the LETEC convention for re-use of data signed, an initial familiarisation with the data sets was undertaken to determine the distinguished corpus for this study. This involved choosing and generating data sets that would be compatible with the various methodological considerations related to a study of affordances within an ecological CHAT purview as well as allow to observe the macro, meso and micro levels of the interacting activity systems as the unit of analysis.

5.3 Data sets

The emerging pedagogical affordances (designed tasks), linguistic affordances (online VC instantiations of the tasks), technological affordances (designed functionalities of the VC platform/VISU) and social affordances (personal and interpersonal behaviour and relations) facilitating pedagogico-socio-linguistic actions at the moment-to-moment interaction level were explored in relation with the pedagogical, linguistic and social needs of each institution or activity system at the macro project level. Hence, the data sets were chosen accordingly to throw light on the online interactivity at the level of moment-to-moment interactions, the meso or session level pedagogical and linguistic interactions and the macro or project level design for asymmetrical VC collaborations.

5.3.1 Data sets in the distinguished corpus

As data sets for the distinguished corpus, the online data comprised video recordings of the principal online activity or VC interactions as well as text chat and images generated in each VC session. The offline data comprised documentation on VISU functionalities, written transcripts of the session plans designed in the pre-session phase and the post-session asynchronous feedback (*bilan*) generated by tutors as well as tutor post-session discussions following the online interactions, called debriefings. It also comprised post-project accounts of the tutors' and tutees' online experiences. The post-project researcher-elicited data comprised semi-structured interviews of tutors, tutees and their respective lecturers as well as anonymous questionnaires of the tutees' online learning experience. These three types of data sets are listed below:

Online session instantiation:

- Video recordings of the online synchronous VC sessions of four tutor-tutee triads for all six sessions;
- Chats, videos, images used during the videoconference.

Offline generated data:

Pre-session phase:

- Documentation on design of Visu (VC platform) and its functionalities;
- Session plans designed by tutor pairs that were uploaded on Visu right before the session.

Post-session phase:

- Online asynchronous multimodal (written, audio, video) corrective feedback called *bilans*⁵;
- Transcribed debriefing sessions;
- Tutor written reports accounting for their online experiences;
- Student VoiceThread productions accounting for their online experiences.

Data elicited by researchers to examine user behaviour and experience:

- Post-session semi-structured interviews of tutors, tutees, and Dublin and Lyon lecturers.

It must be noted that even though four triads' VC online interactions were selected for analysis as the principal activity in this thesis, the other data types include multiple perspectives from

⁵ In the ISMAEL corpus, five bilans are missing due to technical problems either during the interactions or non-availability of recordings in the post interaction phase. For Melissa_{TR} all the bilans are present; for Adele_{TR} session 6 is missing; for Emili_{TR} sessions 1 and 4 are missing; for Samia_{TR} sessions 5 and 6 are missing.

different actors from both the tutor and tutee activity systems and are not limited to the four triads only. Furthermore, Victor_{TR}'s MA dissertation⁶ has been used by me to supplement the 'tutor written reports accounting for their online experiences' in this thesis although it is not a part of the ISMAEL corpus. These data sets were chosen with a view to address this thesis's epistemological considerations.

5.3.2 Data types, discourse genres and purpose of analysis

Discourse is defined in socio-constructivist theories as the fixation of meaning within a particular domain (Jorgensen & Phillips, 2002). The different types of data generated in this study, such as session plans, online interactions, debriefings, interviews, written reports and VoiceThread recordings can be considered as different types of discourse that complement each other to fix meaning. Additionally, each of these data sets represent different discourse genres that correspond with different activity phases of the VC learning ecology, as listed in Table 5.2.

Table 5.2: Data types and their purpose of analysis

| Data type | Activity phase in VC learning ecology | Discourse genre/ Subjects involved | Purpose of analysis |
|--|--|---|---|
| Visu documentation Session designs | Pre-session design activity | Tool design description Discourse planning and reflection on the practical activity/ Tutor-enacted only | Identify designed technological and didactic or pedagogico-linguistic action possibilities or affordances. |
| Video recordings of online interactions | In-session pedagogical conversation/ interaction via videoconferencing | Discourse enacting the practical activity/ Tutee and tutor-enacted (discourse and activity merge completely here) | Identify online instantiations of the designed affordances as positive and negative affordances. |
| Debriefings Offline multimodal feedback | Post-session reflection activity | Collective discourse reflecting on and analysing the practical activity/ Tutor-enacted only | Identify collective pedagogico-dialectical reflection on the designed affordances and perception of positive and negative affordances/interaction breakdowns & systemic tensions. Identify collective and individual perception of new |

⁶ Victor_{TR} a Canadian tutor was part of the ISMAEL project and one of the two tutors (including Adele_{TR}) who responded to my request to meet (in 2016 and 2018) for a discussion on their online teaching experience long after the project was over (in 2013). The two tutors had also designed the fifth session plan in the project.

| Data type | Activity phase in VC learning ecology | Discourse genre/ Subjects involved | Purpose of analysis |
|--|--|--|---|
| | | | tools to circumvent the interaction breakdowns. |
| Participant semi-structured interviews | Post-project reflection activity | Individual discourse reflecting participants' experience with the activity and with other subjects/ Tutee, tutor and module lecturers' reflections | Identify project design, session design and interaction design level pedagogico-socio-linguistic and tech. affordances (+ve & -ve). |
| Tutor written reports | | | |
| Tutee VoiceThread productions | | | Identify development of semio-pedagogical competences. |

Hence, L2 learning and the development of oral interactional and pedagogical competences via VC are the shared objects of the tutor-tutee interacting activity systems. In this sense, the VC activity system is not reducible to the technological or linguistic enactments online. It is understood as a trajectory from raw material activity (session design) to transformed product (Visu instantiation) in the emerging context of its eventual use by another activity (post session reflection and new session design). The data types and discourse genres enumerated above reflect the methodological stance of this thesis, i.e., analysing the VC learning ecology as an iterative process of action-reflection cycles in which certain action possibilities or affordances are designed (technological and pedagoico-socio-linguistic) in the technological and pedagogical artefacts, and their online enactments resulting in either validation or rejection of these designed affordances. In the process, emerging action possibilities are identified that either appear serendipitously on the spot or as a result of collective or individual reflection. Both positive and negative affordances or interaction breakdowns and systemic tensions in the VC environment are perceived in the post-session and post-project reflections. These action-reflection iterations are, thus, traced from the design of the session plans to the online enactments of pedagogico-socio-linguistic and technological affordances to collective and individual reflections on these enactments and the repetition of the same cycle but with changed pedagogico-socio-linguistic tools each time.

5.4 Data encoding

In this study's context, data encoding was undertaken to identify the designed affordances (technological, pedagogical, social and linguistic), the emerging affordances that appeared in the process of instantiating the designed ones, the interaction breakdowns and systemic manifestations of tensions and constraints, and the participants' perception and enactment of these with regard to L2 learning and teacher training. A step-by-step description of the various data

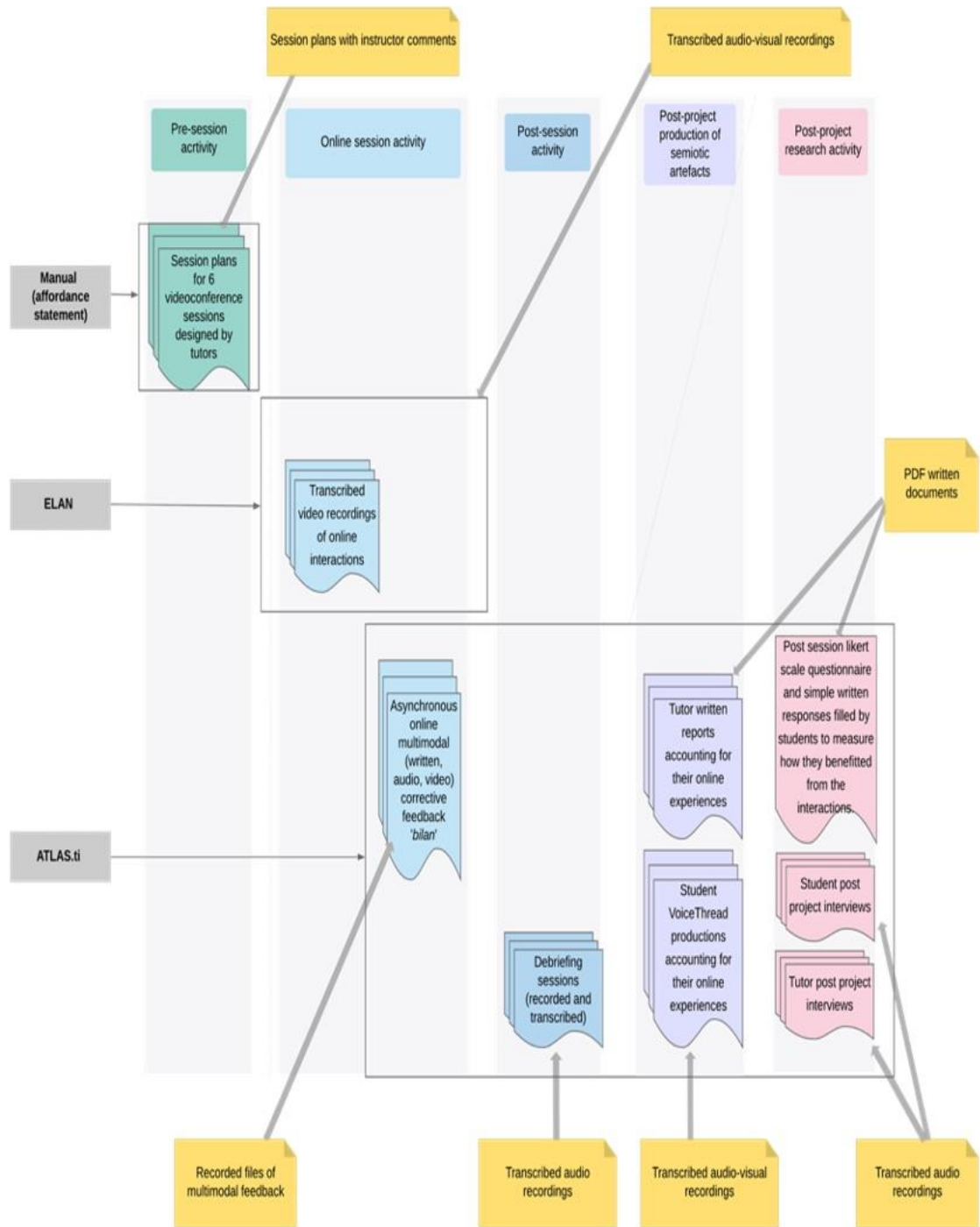
encoding actions undertaken against the backdrop of the epistemological stance of the theory of affordance as underpinned by the CHAT framework is elucidated here.

As illustrated in Figure 5.3, the two tools used for the qualitative data analysis were ELAN and Atlas.ti. ELAN was used only for the multimodal data analysis comprising video, audio and text. Other types of transcribed oral data or written productions were uploaded on Atlas.ti. ELAN's multiple overlapping tiers facilitated 'zooming in' to the multimodal data generated by the principal VC activity in a synchronous vertical hierarchical manner. Atlas.ti allowed 'zooming out' on the reflexive discursive data that followed the principal VC activity asynchronously and that could be linked with the various sub-activities, actions and operations of the VC activity in a lateral networked manner.

Disturbances and tensions emerging in these introspective and retrospective reflections were linked with the activity and sub-activity systems in the learning environment. This approach is in line with the explorative method proposed by CHAT since for discursive psychology as for other qualitative methods, coding is usually the first step. The way to start is to read and reread the transcriptions in order to identify themes. It is a form of coding where text fragments are placed in categories. The aim is not only to identify themes that derive from the theoretical frame but also to be open to new themes that can be found in the data. In the process some themes were rejected and new ones were created.

Atlas.ti allows to code a large number of textual, graphical, audio and video data, link the data in semantically meaningful ways, and visualise the findings in a digital mind map type network. For this study, it facilitated the grouping of codes to create code families that allowed data organization as well as conceptual level analysis and data presentation. A total of ninety-six documents were uploaded on Atlas.ti. These comprised the 'offline generated data' and 'data elicited to examine user behaviour and experience for research purposes' as enumerated in section 5.3.1 (p. 103). These documents mainly provided the pre- and post-session and post-project reflections and hence, the contextual data that threw light on different aspects of the principal VC activity. They comprised both written transcripts of audio recordings and written data. Each document was studied in search of perceptions of action possibilities and disruptions in the activities and sub-activities that the participants engaged in.

Figure 5.3: ELAN and Atlas.ti used for analysing specific data sets



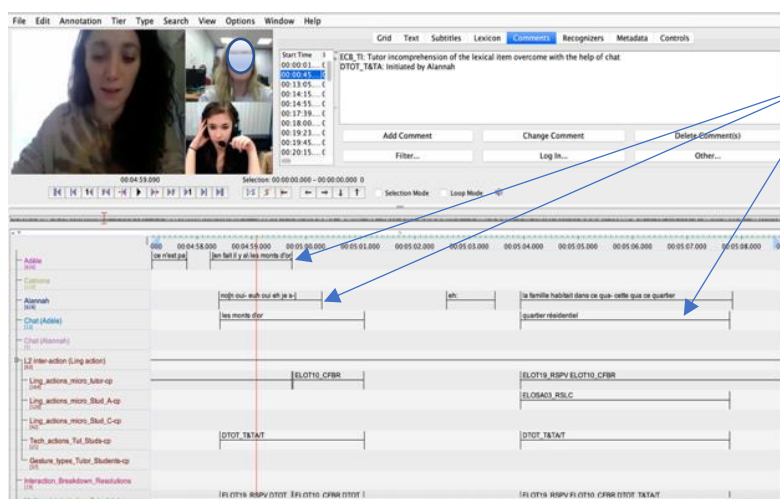
An inductive or bottom up coding was applied for each document, deriving codes/themes from the data. This preliminary coding generated a first set of codes that were modified in subsequent iterations of data analysis. Furthermore, these reflexive discursive accounts:

- offered subjective interpretation of the most salient online disturbances and innovative actions;
- triggered collective voices from peers in the ensuing discussion that offered other innovative actions;
- allowed to note discrepancies between what happened in the online interactions and the tutors' interpretations of these;
- allowed to trace transformation of activity as tutors fixed new objects as a result of collective reflection in order to adapt to the specificities of the learning environment.

5.4.1 Transcribing and annotating the distinguished corpus on ELAN

A significant amount of transcribing has been undertaken by the researchers involved in building the ISMAEL corpus. While transcriptions refer to the written version of the verbal channel, they are distinct from annotations in that the latter furnish critical or explanatory codes and comments for the online interactions. Therefore, annotations have an interpretative quality and seek to address a specific individual or a body of researchers' research agenda (Chanier and Wigham, 2016). Transcriptions, on the other hand, require following a shared set of conventions common to a body of researchers using a global corpus. The transcribed portions in the ISMAEL corpus comprised the base and intermediated levels of transcription. Non-verbal phenomena such as non-verbal actions, gestures, expressions, etc. have not been included in this study. These were added by individual researchers in their respective distinguished corpora depending on their research questions. Figure 5.4 illustrates a multimodal transcription showing one of the tutees talking while the tutor writes something using the text chat.

Figure 5.4: Transcribed and annotated segment of merged files on ELAN



Different layers of transcriptions on ELAN

At least three modes or modalities are being used in Figure 5.4: audio, video and text chat. The researcher transcriber defines one layer per participant and per modality, i.e., the tutor's utterances are all assembled on the same tier but her individual actions using the keyboard (text chat) are on a separate tier. Similarly, the two tutees' utterances and actions are noted on separate tiers. Transcription is aligned with the video time and ELAN also provides different ways of selecting parts of the video and the corresponding transcription tiers. Furthermore, exploratory and interpretative annotations are created on independent tiers to code the data based on theoretically driven epistemological and methodological choices to address this thesis's research questions.

5.4.2 Coding designed technological affordances

After a preliminary familiarisation with the VC interactions uploaded on ELAN and the contextual reflexive data uploaded on Atlas.ti, the first layer of analysis comprised the identification of the designed technological affordances in the system. Based on a 'technological affordance statement' for engineering design formalised by Cormier, Olewnik and Lewis (2014), the guide manual for the principal technological artefact, the VC platform Visu was scrutinised in order to identify the designed technological affordances.

An affordance statement is structured as follows:

"the *principal artifact* affords a [user] [affordance] of [target object or environmental entity] [from additional information (optional)]" (Cormier et al., 2014, pp. 256–266).

The implementation of this statement for Visu is illustrated in the findings presented in Chapter Six (section 6.1, p. 126). Here is an example of an affordance statement for a principal artefact and an environment artefact (definitions are given in section 6.1) as designed in the VC tool.

Affordance statement for the principal artefact designed in the VC-tool:

The principal artefact *synchronous salon* affords a [tutor] [creation (add name, date, time), planning (add instructions, key words, memos and docs), editing, deleting] of [educational and linguistic objectives; session task, multimedia, key words] [in the pre-session preparation phase].

Affordance statement for an environment artefact designed in the VC-tool:

The environment artefact *email* affords a [student & tutor] [sharing] of [information] [with others in the pre or post-session interaction].

This first layer of analysis of artefact-user affordances and artefact-artefact affordances⁷ in the learning environment allowed to identify three categories of designed technological affordances for asymmetrical VC, namely the Information and Communication Affordances (I&CA), Traceability and Temporal Affordances (T&TA) and Navigation and Spatial Affordances (N&SA). These are defined in detail in the next chapter as the findings of the first layer of analysis. Table 5.3 shows the codes that were generated for Visu’s designed technological affordances for asymmetrical L2 learning and teaching for Melissa_{TR} in the first session.

Table 5.3: Codes related to designed technological affordances in session 1

| Codes/Annotations | Description of designed technological operations |
|--|---|
| DTOT_T&TA(chat)/T_S1_Melissa _{TR} | Tutor in the triad activates a text chat message |
| DTOT_T&TA(chat)/A_S1_Melissa _{TR} | Tutee A in the triad activates a text chat message |
| DTOT_T&TA(chat)/C_S1_Melissa _{TR} | Tutee C in the triad activates a text chat message |
| DTOT_I&CA/T_S1_Melissa _{TR} | Tutor in the triad communicates an information/artefact |
| DTOT_I&CA/A_S1_Melissa _{TR} | Tutee A in the triad communicates an information/artefact |
| DTOT_I&CA/C_S1_Melissa _{TR} | Tutee C in the triad communicates an information/artefact |
| DTOT_N&SA/T_S1_Melissa _{TR} | Tutor in the triad navigates online tabs |
| DTOT_N&SA/A_S1_Melissa _{TR} | Tutee A in the triad navigates online tabs |
| DTOT_N&SA/C_S1_Melissa _{TR} | Tutee C in the triad navigates online tabs |

The ‘DTOT’ in the nomenclature stands for ‘Designed Technological Operation’ for the moment-to-moment interactions followed by the category of technological affordance. T&TA(chat) signifies that out of all the traceable and temporal affordances (see section 6.1, p. 126) only the enactment of the text chat function was observable in the study’s corpus. ‘/T’, ‘/A’ and ‘/C’ in the code represent the tutor’s, tutee A and tutee C’s enactments of the technological affordance respectively, in the triads. On the basis of the initiatives taken to interact in the online interaction, tutees in each triad have been labelled as A (more active) and C (relatively less active). ‘S1_Melissa’ conveys the session number and the tutor name to identify the triad in question. The codes thus generated were uploaded on ELAN for the second layer of analysis in order to investigate the enactment of the designed technological affordances in the online instantiations to achieve certain linguistic and pedagogical objects.

5.4.3 Coding designed pedagogical and linguistic affordances

The second step of the first layer of analysis focused on the designed linguistic and pedagogical tasks or sub-activities for the VC environment. The affordance statement was used to consider

⁷ Artefact-user affordances are defined as potential interaction between human users and artefacts whereas artefact-artefact affordances are defined as potential behaviours between two artefact subsystems (Cormier, Olewnik and Lewis, 2014).

the relationship between the principal artifact, the user role and other neighbouring or sub-artefacts or users in the learning environment. For this, Visu's complementary artefact or the session designs were scrutinized.

The six session designs created for the VC interactions were uploaded and coded inductively on Atlas.ti. The codes in Table 5.4 were generated for the pedagogico-linguistic affordances 'designed' in session 1. See Appendix B, (p. 272) for the full script of the designed session plans for all six sessions. Designed linguistic actions, abbreviated as 'DLA' in the codes, are defined as subsets of the VC activity or the session in question (S1 signifies session 1). The (M) in the nomenclature signifies the 'meso'/session level of the analysis. The numbers represent the chronological order of their occurrence in the session designs.

Table 5.4: Codes related to designed linguistic and pedagogical affordances in session 1

| Codes/Annotations | Description |
|--------------------------|--|
| DLA(M)01_S1 | Questions on job satisfaction and problems of the Irish employees |
| DLA(M)02_S1 | Questions on the culture of strikes in France & intercultural comparison with Ireland |
| DLA(M)03_S1 | Questions on describing an image and the work rights in France (e.g. <i>35 heures</i>) |
| DLA(M)3.5_S1 | Describe the picture question |
| DLA(M)04_S1 | Questions on holidays as employee rights. Intercultural comparison of holidays |
| DLA(M)4.5_S1 | Listening comprehension on work culture |
| DLA(M)05_S1 | Questions on 'coffee break' as employee rights |
| DLA(M)5.5_S1 | Interpret from the pic the habits of French people & make intercultural comparisons with Ireland |

These codes were uploaded on ELAN to facilitate the second layer of analysis, that is the identification of the emerging linguistic and pedagogical affordances in combination with the designed technological affordances in the course of the online VC interactions.

The identification of 'designed' technological and pedagogico-linguistic affordances in the session design scripts of all six sessions revealed new pedagogico-linguistic affordances in subsequent session designs. This was a result of the system's action-reflection cycles where tutors attempted to replace old pedagogico-linguistic tools with new ones as the sessions progressed and as they perceived the VC system's needs and intrinsic challenges more clearly.

5.4.4 Coding emerging pedagogico-socio-linguistic affordances

The second layer of data encoding as illustrated in Figure 5.1 explored the online instantiations of the designed affordances in the principal activity, i.e. the online VC interactions. This was executed in two stages. First, the micro level moment-to-moment linguistic and pedagogical actions, sub-actions and technological operations of individual actors (tutor, student A and student

C) in each triad were coded/annotated inductively. This resulted in an exhaustive list of all the micro-level operations, sub-actions and actions for each individual per triad that were different for each session and were different for each triad per session. After a couple of coding iterations for each individual session and actor, a controlled vocabulary began to take shape. A ‘controlled vocabulary’ is a feature in ELAN that allows to assign fixed codes to automatically annotate the relevant data selected by the researcher. It eliminates all possibilities of human error in assigning codes or annotating the linguistic features in the interaction. Moreover, it helps to generate a stable list of codes. Hence, a controlled vocabulary comprising users’ actions and operations was generated for this study. The controlled vocabulary was developed based on a sociocultural interpretation of interaction rather than an interaction hypothesis one. These were grouped into new overarching categories of meso level actions or triadic interactions.

5.4.5 Coding micro level tutor and tutee-enacted actions

The fine-grained micro-coding of individual linguistic sub-actions for the tutor, tutee A and tutee C involving all six sessions for all four triads comprised 54, 46 and 41 sub-action types respectively. The full list of the codes can be found in Appendix C, p. 284.

Tutor-enacted micro level pedagogico-linguistic actions: The micro level tutor-enacted pedagogico-linguistic actions and technological operations in the online interactions (see Appendix E, p. 296) were grouped into four main functional themes: task instructions, questions, responses and corrective feedback. These grouped categories of affordances are highlighted in the left column in Table 5.5. Together these actions facilitated the tutor’s pedagogical actions as scaffolder of tutees’ oral participation, complexification of tutee responses, and peer-to-peer tutee interaction & collaboration.

Table 5.5: Tutor-enacted micro level pedagogico-linguistic affordances

| VC interactions afford tutors... | General description of linguistic and pedagogical actions |
|----------------------------------|--|
| Tutor instructions (TI) | <ul style="list-style-type: none"> - Announcing session objectives (TIO), - Announcing new tasks (TIT), - Managing time/mode/material (TIM), - Meta instruction on <i>bilan</i> (TIB), - Turn giving/closing (TITG), |
| Tutor questions (TQ) | <p>On tutees’...</p> <ul style="list-style-type: none"> - Social life (TQSL), - Learning environment (TQLE), - Main module objectives (TQMO), - Work experience (TQWE), - Intercultural and Business studies knowledge (TQBS), - Comprehension of VC instructions/tasks/materials (TQSD) - Comprehension of <i>bilan</i> (TQB). |

| VC interactions afford tutors... | General description of linguistic and pedagogical actions |
|--|--|
| Tutor responses (TR) | <ul style="list-style-type: none"> - Salutations (TRS), - Knowledge-based response on language & L2 culture (TRK), - Discussion on tutors' own life/sociocultural context (TRTL), - Friendly talk/joking (TRF), - Recapitulating the interaction (TRR), - Back-channelling (TRBCh), - Tutees' emerging questions (TRSQ). |
| Tutor synchronous corrective feedback (CFB) | <ul style="list-style-type: none"> - Recast/Repetition (TFBR), - Vocabulary/Pronunciation (TFBV/P), - Explanation (TFBE), - Translation (TFBT). |
| Tutor scaffolding of... (TSC+) | <ul style="list-style-type: none"> - Tutees' oral participation <ul style="list-style-type: none"> o Knowledge-based responses (TSC+K), o Skill-based responses (TSC+S), o Opinion-based responses (TSC+O). - Tutees' oral complexification <ul style="list-style-type: none"> o Critical/deep reflection (TSC+C), o Debate of ideas (TSC+D), o Questioning (TSC+Q). - Peer-peer interaction <ul style="list-style-type: none"> o Collaborative tasks (TSC+P), o Helping peer (linguistic/thematic) (TSC+H). |

Tutee-enacted micro level linguistic actions: The micro level tutee-enacted linguistic actions in the online interactions (see Appendix F, p. 302 for full list of codes) were grouped into two main functional themes, namely tutee responses and questions. These grouped categories of affordances are highlighted in the left column in Table 5.6.

Table 5.6: Tutee-enacted linguistic affordances

| VC interactions afford tutees... | General description of linguistic actions |
|--|---|
| Tutee response themes | Description of tutees': <ul style="list-style-type: none"> - Social life, - Learning environment, - Main module objectives and tasks, - Work experience, - Intercultural and Business studies knowledge, - Study in France programme, - Comprehension of materials/instructions/tasks/<i>bilan</i>, - Feedback on <i>bilan</i>. |
| Simple, descriptive & reasoned response types | <ul style="list-style-type: none"> - Simple response to question (Yes/No), - Back channelling, - Reasoned response to question, - Descriptive response to question, - Knowledge/experience-based response, - Opinion-based response, - Clarification/Reformulation of response. |

| VC interactions afford tutees... | General description of linguistic actions |
|--|--|
| Complex reflected response types | <ul style="list-style-type: none"> - Debate of ideas/ critical thinking, - Creative thinking, - Complexification of response, - Recapitulation of the Interaction. |
| Constrained response types | <ul style="list-style-type: none"> - No response knowledge-based, - No response competence-based, - Code switching, - Interlanguage hesitation, - Incorrect response to question, - Incorrect pronunciation impairing comprehension. |
| Regulating interaction response types | <ul style="list-style-type: none"> - Takes initiative to respond without solicitation, - Auto-correction, - Auto-evaluation, - Feedback on tutor's <i>bilan</i> & sessions, - Tutee asks for more time to think, - Temporary uptake and reutilisation by tutee, - Material-initiated utterance (before tutor's question), - Initiates interaction/explanation to help peer, - Friendly/humorous discussion/reaction to tutor, - Takes up from peer's response. |
| Tutee question types | <ul style="list-style-type: none"> - Lexical Search/Incomprehension/asks for help, - Tutee-initiated Question (on proposed theme or new theme), - Questions on VC session & feedback/<i>bilan</i>, - Searching feedback. |

An analysis of the most salient aspects of each of the above emerging tutor and tutee-enacted pedagogical and linguistic affordance categories is proposed in the next chapter. It is noteworthy that 'interlanguage hesitation' as a constrained tutee response type in this study, denotes an unintelligible or heavily anglicised pronunciation, lexical and syntactical deficiencies, the inability to express one's ideas in a coherent and comprehensive manner and too many oral hesitations (uhm, euh euh, etc.). Interlanguage hesitations will be looked into in Chapter 7 (Figure 7.1, p. 191) as contributing to interactional challenges in VC.

5.4.6 Emerging meso level triadic interactions

The meso level pedagogico-socio-linguistic affordances that emerged as online triadic interaction categories were tutor-scaffolding, tutor-questioning, co-construction of meaning, tutor and tutee-feedback, and social interaction on tutor and tutee life, work and intercultural themes. The code E/DLAM represents the merger of Emerging (E) and Designed (D) Linguistic sub-Actions (LA) at the meso (M) session level. The emergent sub-activities or triadic interactions are listed in Table 5.7.

Table 5.7: Emerging meso level pedagogico-socio-linguistic affordances

| Codes/Annotations | Description of triadic interaction types |
|--------------------------|--|
| E/DLAM01 | Greetings and Fixing sound (before session) |
| E/DLAM02 | Improvised Small Talk/Social Interaction |
| E/DLAM04 | Interaction on tutees' learning environment & curriculum |
| E/DLAM05 | Tutor/Tutee links designed question to students'/tutor's own life context |
| E/DLAM06FS_L | Co-constructing linguistic/thematic explanation in the interaction following tutor or student question |
| E/DLAM06FS_MTA | Focus shift: Managing technical affordances (e.g. webcam, mic, video, image on screen) |
| E/DLAM06FS_MTP | Focus shift: Managing technical problems |
| E/DLAM06FS_T/SI | Tutor-initiated theme change/co-constructed social interaction on Students'/Tutor's Life/Culture/Likes |
| E/DLAM06FS_SIQ/IC | Tutee-initiated theme change/co-constructed interaction on intercultural theme etc. |
| E/DLAM08 | End of session exchange |
| E/DLAM10 | Meta instruction/Feedback <i>bilan</i> /Discussion on L2 |
| E/DLAM16 | Scaffolding: Tutor encourages students to answer/participate/recapitulate the discussion (superficial) |
| E/DLAM18 | Scaffolding: Tutor encourages deeper more reflective answers |
| ELAM106_MIMA | Instruction (Meta): connects with macro module level needs |
| E/DLAM120_QSLE | Question on theme/type: Students' Learning Environment & Learning preferences |
| E/DLAM121_QSWE | Question on theme/type: Students' Work Experience |
| E/DLAM122_QSWEF | Question on theme/type: Students' Work Experience in France |
| E/DLAM123_QSMA | Question on theme/type: Students' macro module activities |
| E/DLAM124_QSLC | Question on theme/type: Students' Life/Cultural Context |
| E/DLAM126_CK | Question on theme/type: Checks Knowledge |
| E/DLAM128_QUSO | Question theme: Tutor tries to understand student curriculum objectives/constraints |
| E/DLAM129_QSFB | Question type: Tutor asks student for feedback |
| ELAM132_EQI | Question type: Emerging Question from Interaction |
| ELAM180_HSC+ | Scaffolding: Encourages Complexification/Hedging Strategy |
| ELAM182_CI+ | Scaffolding: Encourages clarification |
| ELAM183_BCD | Scaffolding: Build on competences developed |
| ELAM184_ESQ | Scaffolding: Encourages Student to Question (linguistic or thematic) |
| ELAM186_ESHP | Scaffolding: Encourages Student to Help Peer (linguistic or thematic) |
| ELAM188_FEM | Scaffolding: Encourages Free Expression based on Material/Video |
| ELAM190_DI | Scaffolding: Encourages Debate of Ideas |
| ELAM192_ESR | Scaffolding: Encourages Students to Recap |
| ELAM198_ESCP | Scaffolding: Encourages Student to collaborate with Peer (linguistic or thematic) |

These emerging meso/session level actions were broadly grouped into eight interaction types as listed below in Table 5.8 along with their corresponding annotations used to code the online interactions.

Table 5.8: Meso level emerging linguistic actions

| Types of emerging meso/session level interactions | Emerging linguistic & pedagogical actions (annotations) |
|--|--|
| Peripheral talk (PT) | Greetings and fixing sound before session (ELAM01) |
| | Improvised small talk/Social Interaction (ELAM02) |
| | End of session exchange (ELAM08) |
| | Meta instruction/ Feedback <i>Bilan</i> / Discussion on asynchronous communication (ELAM10) |

| Types of emerging meso/session level interactions | Emerging linguistic & pedagogical actions (annotations) |
|---|---|
| Co-constructed social & intercultural interaction (CSII) | Tutor/Student links designed question to tutees'/tutor's own life context/Intercultural discussion (ELAM05) |
| | Tutor initiated co-constructed interaction on tutees'/tutor's life/culture/likes (ELAM06FS_T/SI) |
| | Student initiated co-constructed interaction on intercultural theme etc. (ELAM06FS_SIQ/IC) |
| Co-construction of lexical and thematic explanations (CLTE) | Focus on form: Co-constructing linguistic/thematic explanation in the interaction (ELAM06FS_L) |
| | Student repetition affords Temporary uptake and reutilisation by student (ELAmS272_UpTR) |
| | Question on theme/type: Checks Knowledge (ELDLAmT126_CK) |
| | Question type: Tutor asks student for feedback (ELDLAmT129_QSFB) |
| Focus shifts (FS) | Focus shift: Managing technical affordances e.g. webcam, mic, video, image on screen (ELAM06FS_MTA) |
| | Focus shift: Managing technical problems (ELAM06FS_MTP) |
| Co-construction of simple and complex production (CSCP) | Recapitulation of interaction by tutor (ELAM14) |
| | Scaffolding=Tutor encourages tutees to answer/participate/recapitulate the discussion (ELAM16) |
| | Encourages complexification/hedging strategy (ELAM180_HSC+) |
| | Encourages clarification (ELAM182_CI+) |
| | Encourages student to question (linguistic or thematic) (ELAM184_ESQ) |
| | Encourages free expression based on material/video (ELAM188_FEM) Encourages debate of ideas (ELAM190_DI) |
| Encourages Tutees to recap interaction (ELAM192_ESR) | |
| Learning environment & curriculum-based talk (LEC) | Link to tutees' learning environment & curriculum (ELDLAM04) |
| | Instruction (Meta): connects with macro module level needs (ELAM106_MIMA) |
| | Question theme: Tutees' Learning Environment & Learning preferences (ELDLAM120_QSLE) |
| | Question theme: Tutor tries to understand student curriculum objectives/constraints (ELDLAM128_QUSO) |
| Peer-to-peer collaboration (P2P) | Encourages student to collaborate with peer (linguistic or thematic) (ELAM198_ESCP) |
| | Encourages student to help peer (linguistic or thematic) (ELAM186_ESHP) |
| Work experience-related talk (WE) | Question theme: Tutees' work experience (ELDLAM121_QSWE) |
| | Question theme: Tutees' imminent Work Experience in France (ELDLAM122_QSWEF) |
| | Question theme: Tutees' professional competences (ELAM130_QSPC) |

Types of emerging meso/session level interactions

Emerging linguistic & pedagogical actions (annotations)

Question theme: Student's personal qualities (**ELAM131_QSPQ**)

Peripheral talk (PT): This comprises small talk and organisational talk regarding asynchronous communications that were typically placed at the beginning and the end of the VC interactions. These small talk interaction types were related to the tutees' sociocultural context (home, family and friends) and the learning environment. The PT addressed social, linguistic (*bilan*), and meta-interactional (feedback on *bilan* & documents) themes.

Co-construction of social & intercultural interaction (CSII): These are tutor or tutee-initiated communication on a new but related theme to the session design, linked to the participants' professional and personal lives, learning or socio-cultural contexts. The significant aspect of this emerging interaction type are the tutee-initiated questions that broke the predominantly tutor-question tutee-response interaction design format.

Co-construction of lexical and thematic explanations (CLTE): These represent episodes of lexical or thematic explanations co-constructed by the tutors and tutees either at the tutees' request or at the tutors' initiative. They were generally accompanied by tutee-repetition of tutor-feedback indicating a potential possibility of uptake or some form of noticing by tutees conveyed by back-channeling to confirm comprehension. For example, in Excerpt 5.1, Aident_E repeats the oral and textual feedback offered by Emili_{TR} thus indicating a temporary but potential uptake.

Excerpt 5.1: Emili_{TR}_Session

Aident_E: (08:46) *eh : dans mon classe il y a : hm je pense eh : (.) cinq ou six*
(08:51) *qui travaillent avec un (serveur) eh ou un serveuse*

Emili_{TR}: (08:55) *qui TRAVAILLE/ (.) Comme (.) Serveur/*
(08:57) *[ou/ (.) EN TANT] que*
(08:59) *je te not` les [(inaud.)] expressions à côté (.) donc travailler*
(09:03) *Comme ser\veu :r/*

Emili_{TR}_Chat : (09:01-09:06) *travailler comme serveur*

Aident_E: (09:06) *comme serveur*

Emili_{TR}_Chat : (09:07) *en tant que*

Aident_E: (08:46) *eh : in my ((incorrect)) class there are : hm i think eh : (.) five or six*
(08:51) *who work with a (waiter) eh or a waitress*

Emilie_{TR}: (08:55) who WORK/ (.) Like (.) a Waiter/
 (08:57 [or/ AS])
 (08:59) i'll note down the [(inaudible)] expressions on the side (.) so work
 (09:03) Like a wai\ter

Emilie_{TR}_Chat: (09:01-09:06) work like a waiter

Aidene_{TE}: (09:06) like a waiter

Emilie_{TR}_Chat: (09:07) or: AS a waiter

Focus shifts (FS): This type of interaction was identified as participants deviated from the interaction to manage the VC platform's technological affordances as well as deal with its frequent technical breakdowns.

Co-construction of simple and complex student productions (CSCP): Tutor-tutee interactions encouraged different types of oral productions requiring various levels of complexity. These are historically seen as tutor-regulated (as shown in section 2.3.4, p. 40) interactional competences.

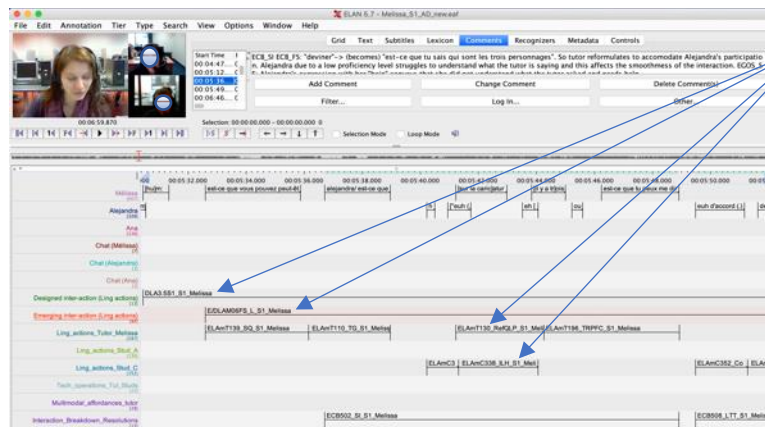
Learning environment & curriculum-based talk (LEC): This interaction theme is linked to tutees' learning environment & curriculum as tutors questioned tutees in order to understand their specific needs with respect to their main module objectives. Tutors also tried to connect the online interactions with the macro module objectives.

Peer-to-peer interaction (P2P): Peer-to-peer interaction or peer collaboration between tutees was initiated by tutors.

'Tutor-scaffolding to encourage students to answer/participate/recapitulate the discussion (superficial)' and 'Tutor-scaffolding to encourage deeper more reflective answers' were 'designed' pedagogical affordances while all the other scaffolding types (CSCP) listed in Table 5.8 emerged in the course of the interactions.

Figure 5.5 highlights this hierarchical annotation of designed and emerging linguistic sub-actions and actions to address the session's pedagogico-socio-linguistic object/activity. The annotated designed sub-activities/tasks are thus composed of emerging pedagogical and linguistic actions, which are in turn composed of smaller units of pedagogical and linguistic sub-actions, and technological operations.

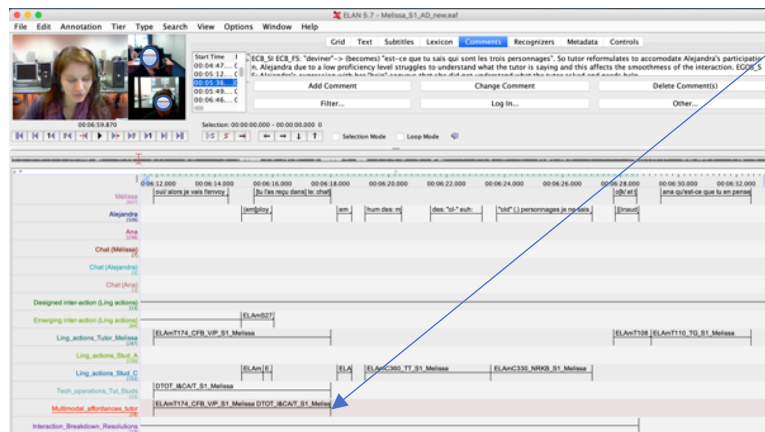
Figure 5.5: Multiple hierarchical layers of annotations on ELAN



Hierarchical layers of annotations on ELAN:
 Designed inter-action;
 Emerging inter-action;
 Tutor-tutee linguistic actions, etc.

Meso level multimodal affordances: Furthermore, the ‘create annotations from overlaps’ function on ELAN allowed to locate multimodal affordances (see Figure 5.6) for each of the participants. Multimodal affordances are defined here as those actions that simultaneously activate the enactment of the verbal, textual, image and video (or multiple) modes. The verbal modes were represented as emerging linguistic actions while the textual and visual modes were represented as designed technological operations afforded by Visu.

Figure 5.6: Creation of new annotations from overlapping annotations on ELAN



Creation of new annotation from overlapping tech operations and linguistic actions.
 The overlaps indicate the multimodal episodes in the interaction.

It was crucial to annotate precisely all the micro level tutor and tutee-enacted pedagogical, linguistic and technological actions that together composed the encompassing layers of triadic interactions. These triadic interactions manifested themselves not only as positive affordances but also as negative affordances as reflected in the “constrained response types” of tutee responses in Table 5.6 (p. 113).

5.4.7 Emerging interactional breakdowns and systemic tensions

This category of annotations is underpinned by the ontological understanding of affordances as not only positive but also negative manifestations of action possibilities. For example, interaction disruptions due to technical breakdowns are negative affordances specific to such technology-mediated learning environments. These disruptions can occur at the micro interaction level, the meso session design level as well as the macro project design level. Users perceive (or do not) these negative affordances and conceive new strategic actions to circumvent these disruptions, constraints, tensions etc. Hence, new action possibilities emerge to overcome the manifestations of these systemic contradictions (see section 3.2.3, p. 58) and the role of iterative instantiations of systemic interactions, from a CHAT perspective, is to facilitate new ways of dealing with systemic breakdowns or negative affordances.

Meso and micro level interactional breakdowns and disturbances:

Table 5.9 presents the episodes of interaction disruptions that emerged (coded inductively) in the online interactions. ECB in the code signifies ‘emerging constraints and breakdowns’ followed by an alphabetical acronym whose full form is described alongside. Like the emerging triadic interactions, these are not micro level manifestations of actions, but rather represent episodes of interaction breakdowns.

Table 5.9: Codes related to emerging interactional breakdowns and disturbances

| Codes/Annotations | Description |
|-------------------|---|
| ECB500_TI | Tutor Incomprehension |
| ECB502_SI | Student Incomprehension |
| ECB504_TP | Technological Problem |
| ECB506_SSO | Subject Student Object: Mismatch between task object and curriculum objectives |
| ECB508_LTT | Lack of Time to Think & express in L2/Lack of student competence to complexify spoken interaction |
| ECB512_TUDI | Tutor unable to dissipate student incomprehension |
| ECB514_TTT | Tutor talks too much and monopolises floor time |

These codes indicate the immediate source of the breakdown but in order to truly understand these micro level disruptions, the analysis needs to zoom out and contextualise them in the meso and macro level perceptions of these manifestations of breakdowns and tensions in the reflexive accounts of participants.

Perception of systemic tensions in the reflective data:

The discursive reflective data that revolve around the principal activity through the post-session debriefings and post-project reflections and interviews of the participants reflect their perception of the online interactions and hence add an interpretative layer to the disturbances encountered in the online interactions. The post session debriefings offered the tutors' perspective on the micro level triadic interactions as well as the session level and VC project level interactions and systemic tensions.

The transcribed debriefing sessions offering naturally occurring ethnographic data to highlight the affordances identified by the tutors and the challenges or breakdowns encountered during the online instantiations while implementing the designed session plans were identified, compartmentalised and coded inductively on Atlas.ti. The post-project reflective reports and interviews of tutors, tutees and their respective lecturers were also coded inductively. Networks of relations (e.g. "is part of", "is associated with", etc.) between the various perceptions of positive affordances and systemic tensions and interaction breakdowns as they emerged in the different reflective data were established using the network function of Atlas.ti. Figure 5.7, on the following page, illustrates the emergence of inductive codes in the reflective discourses of tutors and their lecturer (marked by the green labels on top of the screen captures of the Atlas.ti code manager) as well as tutees and their lecturer (marked by the blue labels on top of the screen captures of the Atlas.ti code manager). These labels highlight their perceptions of interaction breakdowns and tensions in the interacting systems. The identification of common themes of these systemic tensions (the term 'tension' is used to describe the manifestations of contradictions in this study) are represented in the centre as a networked figure.

This analysis allowed to zoom out and place the online interactions against the backdrop of a larger context governed by project design, curriculum and institutional constraints and rules, community and division of labour. Only one example of a systemic constraint is shown in the figure. Other manifestations of constraints and tensions will be discussed in Chapter Seven of this thesis, establishing the connections between the micro, meso and macro levels of the interacting activity systems. Strategic actions that emerged to circumvent or resolve these negative affordances of the environment will also be discussed as emerging affordances with the potential for transformative change and, hence learning.

5.5 Discussion and Conclusion

This study's research methodology seeks to define the tool function affordances (operation level), the pedagogico-socio-linguistic affordances (action level), and the VC project design affordances (activity level) for the asymmetrical VC environment. This necessitated an observation of the changing or emerging meso level interactions in the light of macro level systemic constraints. Also, the changing or emerging interactions can only be identified by a close investigation of its micro level component actions and operations.

Linking Baerentsen & Tretvik's (2002) conception of technological affordances at the operational level and Cormier, Olewnik, and Lewis' (2011) statement of an affordance basis (section 2.2.2, p. 27), the designed linguistic, pedagogical and technological affordances in the VC system were identified. Secondly, drawing on Leontyev's (1978) object-oriented activity, goal-directed actions and routinised operations, the linguistic actions in the VC interactions and their interplay with the aforementioned designed technological operations for L2 learning and teaching were identified. A coding scheme was developed for the linguistic and socio-pedagogical activity, actions, sub-actions and technological operations in the principal activity, that is, the online interactions.

The weekly session designs for the VC activity were placed at the level of object-oriented 'sub-activities' while coding their enactment by the tutor-tutee triads in the online instantiations. The enactment of new pedagogical, linguistic and multimodal actions and their functions were coded as 'emerging affordances'. These comprised linguistic sub-actions and technological operations that either emerged serendipitously in the course of the interactions or were a result of collective or individual critical offline reflection. A comparative analysis of the macro, meso and micro levels of observation characterising the different sessions and phases of reflection within the project allowed a systemic description of the connections and distinctions between the functions of the ecological system and its relationship with the subjects' activity.

A technological affordance statement was established for the principal VC platform Visu as well as the neighbouring dependent and independent artefacts in the VC learning ecosystem. A pedagogical affordance statement was established for the weekly session designs and the sub-activities proposed in them in order to identify the principal VC activity's object to attain specific sociolinguistic, intercultural and pedagogical objectives. These designed technological and socio-pedagogical affordances were identified and annotated in the actual online instantiations of the weekly VC interactions. Successive iterations of the data annotations allowed to identify the

linguistic actions and sub-actions that constituted the designed pedagogico-socio-linguistic affordances. These were identified as the emerging linguistic and socio-pedagogical affordances for the tutor-tutee interactions. ELAN was used to identify the tutor and tutee micro level actions and sub-actions. The multimodal interactions in this environment were identified as the overlapping occurrences of technological and linguistic affordances. The main study focused on triadic interactions (one tutor and two tutees) only. Paralinguistic affordances were abandoned as this micro level multimodal aspect was considered to be out of the scope of this study.

The intrinsic nature of VC interactions is multimodal, and multimodality is presented in this study as the use of the three modes, audio, video and text (see the Abstract). This thesis looks at multimodality from the perspective of affordances that are designed and whose actual semiotic functions emerge as they are enacted by users. Hence, webcam (visual mode), microphone (audio mode), text chat (text mode), and other semiotic action possibilities, such as common screen space to share images, videos and texts; pin mark students' errors on the oral recordings; generate individualized and customised multimodal feedback, etc. all become affordances by virtue of the use that they are put to. This study is interested in these opportunities for multimodal actions designed in the learning environment's tools, and not in the notion of multimodality as gestures, expressions and movement per se, that is dominant in the context of non-CALL video interaction research and that has become the preoccupation of many CALL researchers too.

It is, however, noteworthy that initially an extra layer of annotations for facial expressions, body gestures and spatial movements that take place within the participants' screen frame during the online interactions had been added by me. During the second iteration of refining the annotations and codes, it was felt that an already complex methodology with 6 layers of annotations (designed technological operations, designed linguistic actions, emerging tutor linguistic actions, tuteeA linguistic actions, tutee C linguistic actions, interaction breakdowns) was already fine-grained. Adding gestures and paralinguistic features would have put the focus even more on fine-grained analysis and that was out of the scope of this study. This study does not focus exclusively on moment-to-moment and session level interactions but also at the project design level. Hence, I abandoned the idea of including expressions, gestures and movement in great detail. Nevertheless, two instances of gestures have been shown to evidence interaction breakdown as well as the students' perception of tutor anxiety via the webcam. Gaze pressure and technostress have also been touched upon (albeit lightly) in Chapter 7 as a social presence attribute of this specific environment.

However, before that, Chapter Six will zoom in to the micro level technological operations and pedagogical and linguistic actions. This will help shape the meso level pedagogical affordances

one level above. Chapter Seven will zoom out to the macro level systemic constraints and breakdowns and attempt to trace them in the online interactions at the meso level which in turn are shaped by the micro level interactions. The consequent actions to circumvent these macro, meso and micro level constraints and breakdowns will be identified at the project design level, session design level and interaction level as emerging affordances.

Chapter 6 Designed and emerging affordances in a videoconferencing-embedded pedagogy

The previous chapter presented the methodology adopted to address this thesis's research questions. Methodological considerations involved in selecting a distinguished corpus from the LETEC corpus, the creation of different layers of annotations and analyses to identify the designed and emerging affordances, and the subsequent zooming in and zooming out research design determined by the study's holistic ecological approach were elucidated. The chapter proposed to borrow a statement for a technological affordance basis from HCI into this study's context in order to identify all the designed affordances in the learning environment.

Chapter Six will present the first layer of analysis by implementing the technological and linguistic affordance basis statements to identify the designed technological, linguistic and pedagogical affordances in the VC learning environment. Zooming in on the online micro level moment-to-moment instantiations of the designed affordances, it seeks to identify the enactment of the designed technological, linguistic and pedagogical affordances. The tutor debriefings triggered by the tutors' perception of the interactions and feedback from the Dublin lecturer, following each online session, represented phases of critical evaluation and reflection by the tutors. This resulted in changes in the subsequent weekly design plans of the linguistic and pedagogical affordances for the online interactions. Thus, the actual enactment of the designed affordances gave rise to emerging affordances that were positive or negative, perceived or unperceived, depending on the actors. This chapter will analyse what the designed affordances were and to what extent they were successfully enacted by the participants while the next chapter will investigate the reasons why certain designed affordances failed to be effectively enacted in this learning environment. Following an affordance statement, this chapter will first present the designed technological affordances in Visu. Then, it will elaborate upon the designed linguistic and pedagogical affordances in the session designs. Next, it will analyse the interplay between technological, linguistic and socio-pedagogical affordances and the emergent multimodal affordances. Finally, the emergent affordances will be analysed against the backdrop of the reflection-action cycles that participants engage in, in view of their cultural historical context and learning activity. This will allow to formalise a taxonomy of technological, linguistic and socio-pedagogical affordances for asymmetrical VC settings, that may have either been perceived or remained unperceived by the participants.

6.1 Designed technological and pedagogico-socio-linguistic affordances

A crucial component of VC-based pedagogy is technology mediation. The interplay of the unique designed features and functionalities of the VC environment and their interaction with other technological components to facilitate L2 learning and teaching by connecting two geographically distant institutions is under scrutiny here. Based on the “affordance statement” borrowed from HCI (Cormier, Olewnik, and Lewis, 2011, p. 265), an affordance basis for the technological functions of Visu and its supporting, dependent and environment artefacts or entities is proposed here. The affordance statement is then used to analyse the designed pedagogical, linguistic and social affordances in the designed session plans. This allows to establish a taxonomy of the designed technological affordances for the videoconferencing tool Visu as facilitating or constraining the pedagogico-socio-linguistic affordances that the learning environment proposes.

6.1.1 Principal, support, dependent and environment artefacts

The documentation available on the functionalities of Visu and the written tutorials on Visu (accessed from <https://app.box.com/folder/0>, the ISMAEL corpus) will be analysed here to identify the different components of the principal artefact, the use of dependent artefacts, and the actions that these components afforded for L2 learning and teaching for the users that it supported (tutors and tutees). Table 6.1 below shows that the principal artefact Visu was composed of interdependent artefacts. These are called support artefacts, dependent artefacts and environment artefacts (Cormier, Olewnik & Lewis, 2014). Their affordances are listed based on the type of user (tutor or tutee), the target objects or environmental entities and any additional information that may supplement the understanding of their functions. The target objects that the principal and subsidiary artefacts afforded, for example, the planning and editing of session tasks in turn for the online VC sessions in turn allowed the enactment of linguistic and pedagogical actions.

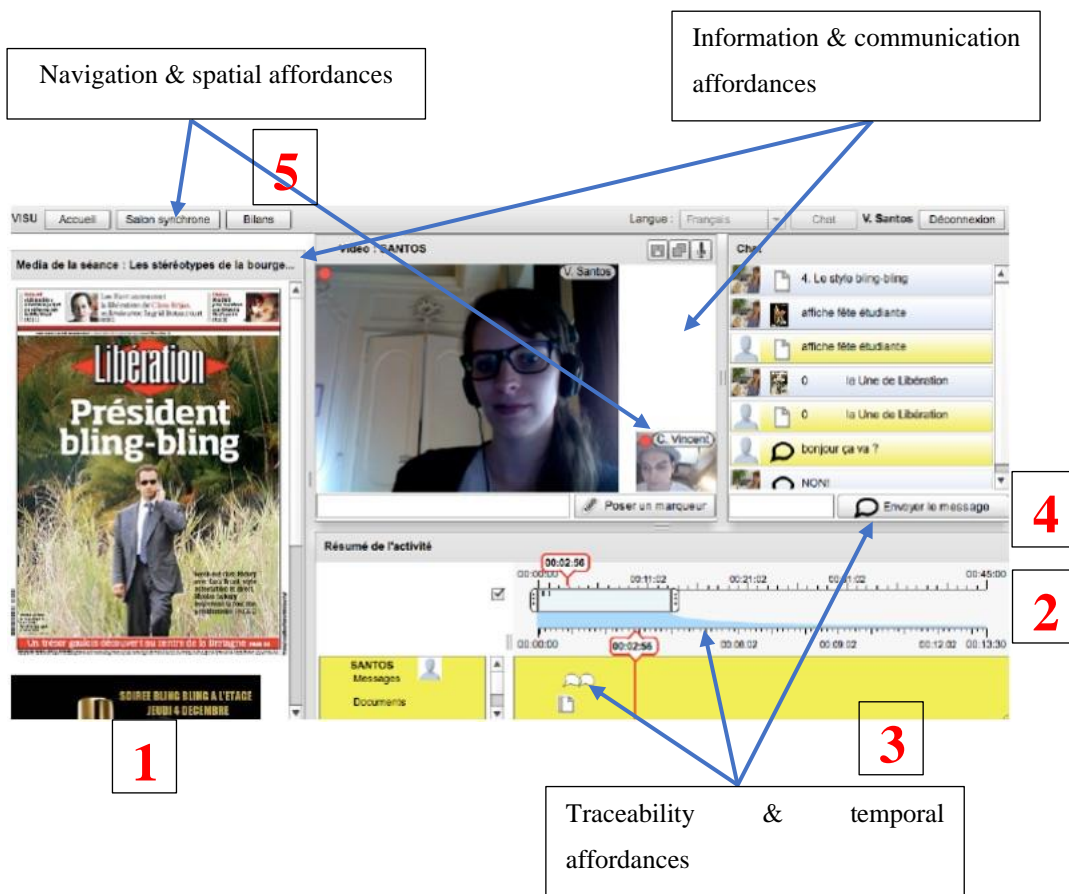
Table 6.1: Affordance statement for principal and support artefact for VC-based L2 pedagogy

| The principal artefacts in Visu afford the user (tutor/student) | Affordance | Target objects or environmental entity | Additional information |
|---|---|--|---------------------------|
| Synchronous salon affords for tutors... | creation (add name, date, time), planning (add instructions, key words, memos and docs), editing, deleting. | of educational and linguistic objectives, session tasks, multimedia, key words | pre-session preparation |
| | viewing & checking (time & resource management aid) | of calendar | all the time |
| | sharing and posting | of session tasks and aims, multimedia, key words | during online interaction |
| | resizing (zoom in/out) | participants | |
| | marking | of errors | |
| | recording & pausing | of audio, video, chat | |
| | seeing & checking (memory aid) | of lesson design | |
| | viewing & checking (time & resource management aid) | of time, shared docs | |
| Synchronous salon affords for tutors & tutees... | seeing & hearing | connected participants | |
| | posting | of session tasks | |
| | communication via text chat | in written mode | |
| Retrospective salon affords for tutors... | reviewing (play, pause), muting & volume controlling | of recordings (audio, video, chat, time) | post-session review |
| | commenting orally (audio/ video) or in written | of participants' utterances of video extracts | |
| | editing, sharing, deletion | of <i>bilan</i> = corrective feedback | |
| Retrospective salon affords for tutees... | accessing | of multimodal corrective feedback | |

Principal & Support artefacts: The principal artefact's capabilities or performance is enhanced with support artefacts. The two main support artefacts for the principal artefact Visu, were the synchronous salon and the retrospective salon. The synchronous salon constituted the main interaction space (see Figure 6.1) composed of onscreen space that was divided into the left memo pane to view the session plan or other notes as (1) prepared before the session, the timeline pane (2), the markers to pinpoint errors (3) during the online session, and the synchronous chat on the

right pane (4) to communicate in the written mode. The retrospective salon (5) affordances were tutor-centred as they were designed for tutor use exclusively. It afforded pre-session preparation and post-session reviewing for tutors that were crucial in supporting the online interactions. This included recording, reviewing and commenting (along with the auxiliary functions of editing, sharing and deleting) of the online interactions using both the video and written modes for delayed noticing and feedback purposes.

Figure 6.1: Visu's designed technological affordances and the synchronous salon



The affordances designed for tutees comprised accessing the synchronous salon for the online interactions. In the asynchronous mode, tutees could access the multimodal corrective feedback once they were shared by tutors. However, tutees were not granted the possibility to comment directly on the feedback. This resulted in tutors' using their online time to solicit feedback from tutees on their asynchronous *bilan*. This and other positive and deficient uses of technological and linguistic affordances designed in the system will be discussed in the following sections.

Dependent artefacts: As defined in section 2.2.2, (p. 27), an effectively functioning computer needed adaptable hardware for Flashplayer 10 (in the context of Visu) and its dependent

accessories such as functional headphones and a webcam enabling the online instantiations as documented in Table 6.2.

Table 6.2: Affordance statement for dependent artefacts for VC-based L2 pedagogy

| The dependent artefacts in Visu afford the user (tutor/ student) | Affordance | Target objects or environmental entity | Additional information |
|--|---------------|--|-------------------------|
| good internet connection affords | instantiation | of VC session | pre-session preparation |
| good computer affords | | | |
| Flash player 10 affords | | | |
| functional headphones afford | listening | of audio | during the VC session |
| functional webcam affords | viewing | of participants | |

Environment artefacts: In the ISMAEL context, environment artefacts, as already defined in section 2.2.2 (p. 27), refers to the communication that took place alongside the Visu interactions via email and document exchanges via Moodle (i.e. a ‘modular object-oriented dynamic learning environment’, an online educational program that enables course designers to create and manage lessons and interact with learners), Google docs and Facebook (at the tutors’ initiative). This marked a crossing of space from the professional to the semi-professional and ‘friends’ realm.

Table 6.3: Affordance statement for environment artefacts for VC-based L2 pedagogy

| The environment artefacts in Visu affords the user (tutor/ student) | Affordance | Target objects or environmental entity | Additional information |
|---|------------|--|--|
| email affords tutor & student | sharing | of information | with tutees: pre or post-session interaction |
| Moodle affords tutor | | | |

6.1.2 Taxonomy of designed technological affordances

Based on the above description of the affordance basis for Visu, a taxonomy for the technological affordances for VC-embedded learning environments is proposed. These are called Information and Communication Affordances (I&CA), Traceability and Temporal Affordances (T&TA) and Navigation and Spatial Affordances (N&SA). Their description and functions are summarised in Table 6.4.

Table 6.4: Technological affordances for VC-based L2 pedagogy and examples of their functions

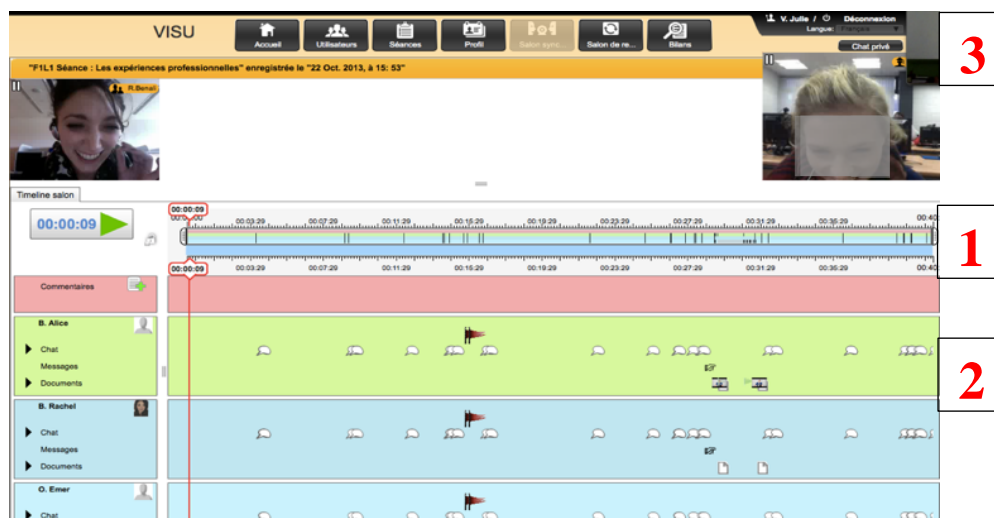
| Affordances & Users | Principal User (tutor/student) & Target object or environmental entity |
|--|---|
| <p>Information & Communication affordances</p> <p>Operational in 3 phases:</p> <ul style="list-style-type: none"> - pre-session planning, - session delivery, - post-session review. <p>Examples:</p> <p>Manage hardware: checking mic & webcam, keyboard & computer</p> <p>Multimedia input: uploading lesson design, editing, sharing lesson design with other participants, deleting.</p> <p>VC instantiation & input: seeing (webcam), hearing (headphones), talking (mic), sharing multimedia docs, keywords on shared space, read (chat).</p> <p>Muting & volume-controlling of recordings; Sharing feedback and communicating with tutees via visu, email and moodle forum; Reflecting on own teaching practice.</p> | <p>Users: Tutor-centred with some features, such as VC instantiation & input used by tutees.</p> <p>Target object: Online connection and interaction via audio, video and text chat and sharing of documents.</p> |
| <p>Traceability & Temporal affordances</p> <p>Operational in 3 phases:</p> <ul style="list-style-type: none"> - pre-session planning (based on individual feedback and recordings of previous sessions), - session delivery, - post-session review. <p>Examples:</p> <p>Tracing: Tutor-operated inbuilt artefact affording instantaneous and delayed feedback.</p> <p>Recording of VC session: Interaction traces (automatically recorded ex. chats, shared docs), marker-based traces (tutor ad hoc notes during VC session), comment-based traces (tutor-post session multimodal feedback).</p> <p>Choosing problematic/marked portions from recording.</p> <p>Viewing: Timeline (horizontal line on screen) to present users with selected elements (thumbnails) from interaction traces & marker-based traces; replaying of sessions; viewing project/session calendar.</p> | <p>Users: Tutor-centred with text chat used by tutees; corpus researchers can retrieve recorded traces</p> <p>Target object: Text chat for written mode, tracing errors for tutees and recording of online teaching for asynchronous reflection.</p> |
| <p>Navigational & Spatial affordances</p> <p>Operational in 3 phases:</p> <ul style="list-style-type: none"> - pre-session planning, - session delivery, - post-session review. <p>Examples:</p> <p>Visually identify real space of tutor and real spaces of the 2 tutees.</p> <p>Resizing windows and moving video frames around; moving around on-screen spaces (tabs).</p> <p>Moving around synchronous (lesson design panel, video, chat, keywords panels, memo) & retrospective spaces.</p> | <p>Users: Tutor-centred with tutors allowed to move between synchronous and retrospective spaces to view feedback.</p> <p>Target object: Moving around the onscreen space and the online and retrospective spaces for offline reflection and generation of multimodal feedback.</p> |

Based on the above summary, the principal technological affordances for VC learning environments are defined as follows.

Information & Communication Affordances (I&CA): The I&CA principally enabled online connection and communication via audio, video and text between distant interactants. The I&C affordances operated in the pre-session, on-session and post-session phases. Visu presented mainly tutor-centred functions in terms of multimedia input, namely uploading lesson design, editing, sharing lesson design, instructions, keywords, etc. The I&CA for tutees enabled access to the Visu online space via the audio-visual channel. For this, tutees were required to check the proper functioning of the computer and auxiliary material such as webcam and microphone just before joining the online interaction.

Traceability & Temporal Affordances (T&TA): The T&TA principally enabled tracing, that is, the means to write in, record and review the interactions in order to provide instantaneous or asynchronous feedback as well as allow both learners and tutors to reflect on the interactions. In Visu, this affordance category functioned in the online interaction (use of text chat and markers to trace student errors later for instantaneous and delayed feedback respectively) and post-session reviewing (for replaying and reviewing the online sessions). The viewing timeline (1) (horizontal line on screen) presented users with selected elements (thumbnails) from interaction traces & marker-based traces (2) as shown in Figure 6.2. While text chat was available for both tutor and tutee use in the synchronous mode, the markers and post-session reviewing in the asynchronous/retrospective salon were reserved for tutor use. The post-session multimodal feedback/*bilan* was available for tutees once it was shared by tutors in the retrospective salon. Guichon, Bétrancourt and Prié (2011) discuss these functionalities of Visu naming it a trace-based synchronous tool.

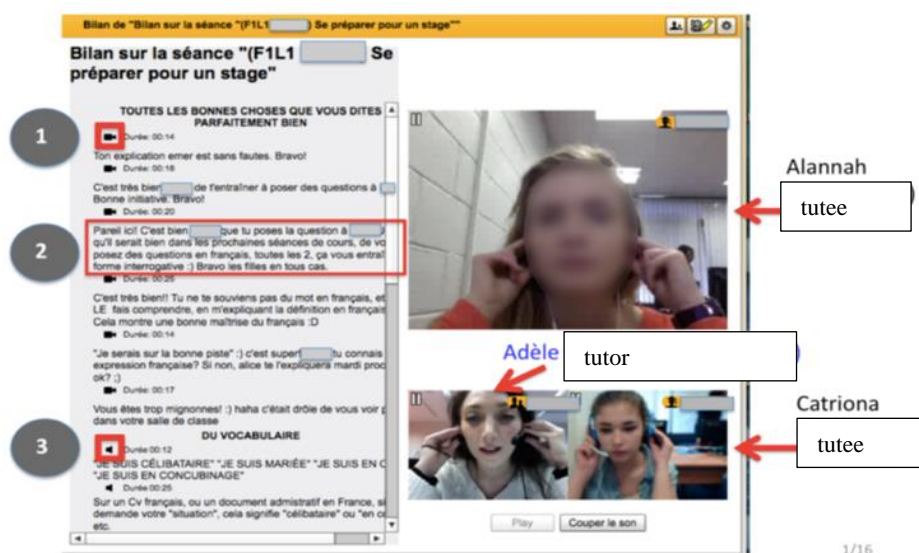
Figure 6.2: Visu’s timeline, markers and online session recordings



Navigation & Spatial Affordances (N&SA): The N&SA principally enabled moving around on-screen spaces (tabs) and between the synchronous and retrospective spaces. In Visu, this was designed primarily for the tutors' use. In Figure 6.2, the different tabs (3) on the horizontal band at the top of the screen indicate the different online spaces that the tutors could navigate. Additionally, resizing windows and moving video frames around was reserved for tutor use only. Synchronous moving around to activate and resize lesson design panel, video windows and keywords panel were reserved for tutor use too. Furthermore, tutees did not have access to the recording in the retrospective or asynchronous salon. They only had access to the post-session multimodal feedback/*bilan* once it had been shared by the tutors in the asynchronous salon.

All three technological affordances cited above operated in close conjunction with each other with some overlapping functions in Visu. For example, the retrospective salon afforded access, in a delayed fashion, to student errors and other moments in the recordings of the online interactions that were 'marked' (2) by tutors. This combination of the navigational and spatial affordance along with the traceability and temporal as well as information and communication affordances (audio, video, text) allowed to generate multimodal feedback/*bilan* in the post-session phase comprising audio (1), text (2) and video (3) feedback as illustrated in Figure 6.3.

Figure 6.3: Asynchronous multimodal feedback/*bilan* (Image courtesy of Julie Vidal)



It still remains to be seen how these technological affordances worked in conjunction with two other crucial components of the learning ecosystem, namely the session designs and tasks at the meso/session level **and the design of the VC project**. A study of the session designs and their actual micro level moment-to-moment online instantiations are proposed below to explore the interplay between the designed technological, pedagogical and linguistic affordances at the micro level. The emerging affordances will be traced in the actual enactments of the designed

technological, pedagogical and linguistic affordances over the different sessions of the VC project. For this, the pedagogical design and linguistic affordances need to be identified first.

6.1.3 Educational and pedagogical design for asymmetrical VC

The action-reflection cycles of the tutor activity system facilitated the emergence of new pedagogico-linguistic affordances in the session designs. Hence, whereas the technological affordances were static in this learning environment (as could not be changed), the pedagogico-socio-linguistic designs gradually changed from simple to more complex interaction types requiring a greater degree of reflection as will be demonstrated in this section.

The VC collaboration and online interactions allowed tutors the opportunity to develop online teaching competence and pedagogical interaction strategies. These were facilitated partly by the Lyon course design that encouraged collective reflection after every session as well as the feedback received from the Dublin-lecturer. The online interactions, post-session debriefings, tutor reports and interviews as well as an analysis of the project design helped in identifying the online teaching competences and interaction strategies that tutors developed. These are categorized under three main headings as follows:

Learning to develop a design for teaching:

- Making thematic choices;
- Making video material choices adapted to tutees' needs (i.e. mainly as semiotic aid to introduce a concept, not just oral comprehension) and proficiency levels;
- Ensuring coherence between session designs and macro level module objectives within which the VC project was embedded;
- Ensuring linguistic and interactional progression between sessions.

Facilitating online interaction and learner oral production:

- Scaffolding online by showing the capacity to build on student responses;
- Scaffolding online by encouraging complexification, clarification, debate of ideas or free expression by tutees;
- Focus on form: Linguistic explanation and feedback;
- Focus on content: Cultural/thematic explanation and feedback;
- Meta-interaction: giving tutees instantaneous feedback also on interactional skills.

Providing asynchronous support:

- Offering adequate asynchronous support through pre-session preparation (e.g. sharing documents) and post-session feedback to facilitate the synchronous interactions;

- Focus on form and content (phonological, morphological, syntactical and semantic feedback);
- Meta-interaction: giving tutees asynchronous feedback not only on linguistic points but also on interactional skills.

Similar to the technological affordance basis presented in the previous section, an affordance basis for the linguistic and pedagogical actions in the session plans designed for the VC project is proposed here. The interaction possibilities or linguistic and pedagogical affordances specifically designed in each session for asymmetrical VC for the L2 learning environment will be analysed in the following sections.

6.1.4 Designed pedagogico-linguistic affordances in session plans

The session design task was taken up by a new pair of tutors every week who would propose a lesson plan for the whole class of tutors. This weekly rotational session design activity took place roughly one week before the online interactions. This allowed the incorporation of changes in the session designs following the tutors' own experience with the online sessions and collective reflection accompanied by the feedback received from the Dublin-lecturer. Below is a descriptive analysis of the six designed session plans and the pedagogical and linguistic affordances that emerged in each subsequent session following an action-reflection cycle to facilitate the tutor-tutee online interactions (see Appendix B, p. 271 for the designed session scripts). It is noteworthy that the pedagogical designs analysed in this section propose the enactment of actions and operations that may or may not have been efficiently implemented by the participants in the online interactions.

Session 1: Work Conditions and Rights/“*Les droits du travail*”

Table 6.5 represents an affordance statement for the designed pedagogical and linguistic actions designed for the first VC interaction. This session plan revolved around an intercultural comparison of work culture and rights in France and Ireland. Mainly knowledge-based, reasoned and opinion-based oral responses were solicited in this session, following a question-answer format. Moreover, iconic and video materials were used to encourage thematic interpretation and listening comprehension. Hence, the first VC session's design seems to follow a traditional communicative classroom interaction design.

Table 6.5: Designed linguistic & pedagogical affordances for session 1

| The principal activity in SESSION 1 afforded for tutors and tutees... | Linguistic & pedagogical affordances | Target objects or environmental entity | Additional information |
|--|--|---|---|
| Oral interaction on: | Tutor Solicitation | <i>Of</i> responses in L2 | Iconic and video materials used for thematic and listening comprehension. |
| Job satisfaction of the Irish people | Tutee comprehension & production | <i>Of</i> responses on interculturality | |
| Intercultural comparison of work hours and paid holidays in France and Ireland | Intercultural comparison and reasoning/argumentation | - Knowledge-based | Predominantly a question-answer format of interaction. |
| Intercultural comparison of coffee breaks in France and Ireland | | - Opinion-based | |
| | | - Reasoned | |

Session 2: Discussing one's Professional Experiences/“*Parler de ses expériences professionnelles*”

Table 6.6 represents an affordance statement for the designed pedagogical and linguistic actions for the second VC interaction. This session design explicitly introduced social/small talk and questions on the multimodal asynchronous feedback ‘*bilan*’, thus, marking an increased awareness regarding the importance of social talk and individual feedback in the online interactions. The addition of keywords is also noteworthy as tutors seem to have come prepared to circumvent interaction breakdowns in case the tutees were unable to express their ideas in L2 due to lexical deficiency. Moreover, in session 2, the emphasis shifted from a France-Ireland interculturality to tutees’ personal and professional experience-based theme. Hence, knowledge-based response solicitations were replaced with themes inducing descriptive responses of professional experiences. Argumentative responses on the evaluation of one’s skills developed through professional experiences and extracurricular activities were also encouraged. This session design seemed to address more directly the macro level pedagogical objectives of the tutee main module, namely writing a CV and cover letter in French and facing a job interview in France (as described in section 4.2.2, p. 74).

Table 6.6: Designed linguistic & pedagogical affordances for session 2

| The principal activity for SESSION 2 afforded for tutors and tutees... | Linguistic & pedagogical affordances | Target objects or environmental entity | Additional information |
|--|--|---|--|
| Oral interaction on: | Tutor solicitation | <i>Of</i> one’s professional experience | 1 video + Key words were displayed on screen in case tutees had trouble finding or developing ideas. |
| Social/small talk + <i>bilan</i> | Tutee comprehension & production | - Descriptive | |
| Tutees’ professional experience | Reasoned description of one’s skills and competences | - Opinion-based | |
| Benefits of a “ <i>stage</i> ”/work experience | | - Reasoned | |

Session 3: Preparing for the Work Experience in France/“*Se préparer pour son stage à Reims*”

While the previous session laid emphasis on the tutees’ current and past work experience, the third session represented in Table 6.7 laid emphasis on the tutees’ future career plans and projections with regard to their imminent study abroad programme and work experience in France. The change in this session compared to the previous sessions was that the video material was programmed to be shared before the session, thus, adopting a flipped approach. How this facilitated the interaction will be looked into in the next section. This session also demarcated itself from the others by proposing exercises on sociopragmatics, namely the use of correct language registers in a formal workplace environment, thus, explicitly introducing a focus on form type of task.

Table 6.7: Designed linguistic & pedagogical affordances for session 3

| The principal activity for SESSION 3 afforded tutors and tutees... | Linguistic & pedagogical affordances | Target objects or environmental entity | Additional information |
|--|--|---|--|
| Oral interaction on: Social/small talk + <i>bilan</i> Tutees’ personal and professional motivations and aspirations Career plan | Tutor solicitation Tutee comprehension & production Drawing reasoned link between a company and one’s skills and competences | Of one’s professional competences Reasoning/ argumentation to defend one’s suitability for a job | Video material shared beforehand, i.e. before the session. Written text exercise displayed on screen with formal and informal expressions to choose from. |
| Distinguishing between formal and informal language registers Reflection on one’s skills Tutor and tutee | Identification of language registers (formal and informal) | Linguistic/sociopragmatic (<i>tu/vous</i>)-based linguistic input | Written summary of the session and guide to help tutees chalk out their professional competences. |

Sessions 1, 2 and 3 were based on a pattern where tutors asked questions and tutees answered. Moreover, all the materials were chosen by tutors and shared unidirectionally. However, the designed linguistic and pedagogical affordances in session 4, as represented in Table 6.8, clearly demarcated themselves as compared to the preceding sessions. Unlike the previous sessions’ question-answer format, session 4 afforded peer collaboration and linguistic actions that required creative thinking and greater agency on the part of the tutees. This was articulated in the production of a collaboratively negotiated Business project.

Session 4: Project-pitching and managing group conflict/“*Gestion d’un projet*”

Session 4’s plan proposed creating a birthday party deal for children. It required the tutees to use their imagination and express in L2 their mental concepts in relation with their knowledge of Business as Business students. Furthermore, the tutees were required to reflect deeply in order to negotiate the order of things to be done to pitch the project. Emphasis was laid on negotiation,

argumentation and critical reflection and most importantly on peer collaboration as noted in Table 6.8. This further entailed a transformation of roles as the initial relation of linguistic expert (tutor) and language student (tutee) was expected to change into tutee as the business expert and the tutor as the linguistic facilitator.

Table 6.8: Designed linguistic & pedagogical affordances for session 4

| The principal activity for SESSION 4 afforded tutors and tutees... | Linguistic & pedagogical affordances | Target objects or environmental entity | Additional information |
|--|--|--|--|
| Oral interaction on: Social/small talk + <i>bilan</i> Role play (proposing a new B'day party deal at McDonalds) | Tutor solicitation Tutee comprehension & production Peer-collaboration | <i>Of</i> a discussion on a project proposal a critical evaluation of experience or opinion-based answers | Tutees are encouraged to write on chat to take notes or tutor helps. |
| Evaluating the benefits and disadvantages of group work Defining qualities and skills of a manager in problematic circumstances. Elucidate how to motivate employees in a company with example of a French company | Negotiation Argumentation Critical reflection | Descriptive answers | Business-related key words to be displayed on screen. |

Session 5: Project-pitching and marketing for a ‘food truck’ in Lyon/“*Mettre en place un projet*”

Session 5 followed on the Business theme from the previous session and proposed a project-pitching and marketing theme for a ‘food truck’ in Lyon. In this session, tutors laid emphasis on adapting the *bilan* to the tutees’ needs. For this, the tutors solicited feedback from the tutees enquiring how their *bilan* could be improved to help them meet their main module needs. This called for greater tutee criticality and agency as they were supposed to evaluate the *bilans*.

A remarkable feature of this session’s linguistic and pedagogical affordances, shown in Table 6.9, was that the task design projected a new role for tutees, i.e. to ask tutors questions as Business experts. This called for greater tutee agency and a reversal of roles again as before this it was the tutor’s tacit prerogative to formulate questions. The linguistic affordances (third column) were numerous and challenging requiring reflective responses from tutees. It seemed to presuppose that tutees had a relatively high level of L2 proficiency and would be able to deal with the innovative format and interact as Business specialists rather than L2 learners *per se*. Furthermore, audio-visual materials were introduced to facilitate the introduction of cultural elements rather than check the tutees’ comprehension.

Table 6.9: Designed linguistic & pedagogical affordances for session 5

| The principal activity for SESSION 5 afforded tutors and tutees... | Linguistic & pedagogical affordances | Target objects or environmental entity | Additional information |
|---|--|---|--|
| Oral interaction on: | Tutor solicitation of questions by tutees | Project-pitching | Iconic materials are used to facilitate the comprehension of cultural elements |
| Social/small talk + <i>bilan</i> | Tutee comprehension & production | Developing marketing campaign | |
| Role play (setting up a food truck business in Lyon, France): Tutor is a client and tutees are business advisors. | Intercultural comprehension and appreciation | Presenting arguments to convince client | |
| Evaluation of previous project pitching experience in Business studies | Tutee agency & argumentation | | |
| | Description, Explanation & Justification | | |
| | Reflective evaluation of previous Business studies-related tasks | | |

Session 6: A mock job interview/“*Entretien d’embauche*”

The sixth and last session of the VC project reverted back to the tutor question-tutee answer format that marked the first three sessions. Table 6.10 represents the designed linguistic and pedagogical affordances of the final session that aimed to address the main module learning objectives (described in section 4.2.2, p. 74) by proposing a mock interview for tutees in view of their imminent work experience in France.

Table 6.10: Designed linguistic & pedagogical affordances for session 6

| The principal activity for SESSION 6 afforded tutors and tutees... | Linguistic & pedagogical affordances | Target objects or environmental entity | Additional information |
|--|--|--|-----------------------------------|
| Oral interaction on: | Tutor solicitation | Face a mock interview for a job for tutee | No material used for this session |
| Social/small talk + <i>bilan</i> | Tutee comprehension & production | Improving VC interactions and tutor’s personal style | |
| Role play: Mock interview | Drawing link with personal capacities and professional competences | | |
| Solicit tutee feedback/evaluation of activity | Description, Explanation, Justification and Argumentation | | |
| Solicit tutee feedback/evaluation of VC sessions | | | |

The above analysis described the linguistic and pedagogical affordances designed in each session to facilitate the tutor-tutee oral interaction and the general progression made over the course of the project. First, the designed affordances expected tutees to express knowledge and experience-based oral responses derived either from facts and figures or general knowledge about France or their lived experiences. Then, they were gradually expected to move on to more

argumentative/reasoned responses. Opinion-based responses were also solicited of tutees as they were required to relate their personal opinions, likes and dislikes. Finally, debating or presenting contradictory ideas in L2, vehiculating one's imagination in oral expression of hypothetical Business concepts while simultaneously engaging in peer collaboration were designed to afford tutees gradually more complex linguistic and interactional opportunities. Below is a recapitulation of the types of responses expected from tutees as part of the designed linguistic affordances in the online sessions:

- Description
- Presenting opinion
- Intercultural comparison
- Sociopragmatics & Focus on form
- Argumentation
- Debating in L2
- Expressing hypothetical ideas/ creative ideas in L2
- Peer-collaboration

However, as will be seen in the next chapter, these designed affordances may or may not have been enacted to their full potential depending not only on the proficiency levels and personal agencies of tutees or on the tutors' ability to regulate the tasks but also on the inherent characteristics of distant asymmetrical VC collaborations. The technological component is an inextricable part of each of the aforementioned linguistic and pedagogical affordances in a VC-embedded learning environment. How these designed affordances play out in conjunction with each other during the online instantiations determine the nature of the emerging affordances.

6.2 Designed and emerging pedagogical and linguistic affordances

The designed tasks affording linguistic and pedagogical actions to facilitate the online interactions have been described and analysed in the previous section. A number of interaction types emerged as a result of the online enactment or instantiations of the designed linguistic affordances that will be discussed in this section. These were session/meso level interactions that were in turn composed of tutor and tutee micro level moment-to-moment pedagogical and linguistic actions and sub-actions facilitated by the designed technological functions and operations.

Linguistic and pedagogical actions are defined as the action possibilities designed in the session plans from a tutor perspective. Tutors are required to regulate online action possibilities for tutees through material choice and design, choice of instructions, scaffolding of tutee production, corrective feedback on form and content, regulation of tutee interaction attitude and the right

timing to introduce these components in synchronous VC. These are meso or session design level pedagogical affordances that the pre-service tutors need to develop in order to provide a framework to facilitate linguistic and sociocultural affordances for tutees. If the linguistic affordances in this environment address ‘how one is learning L2’, the pedagogical affordances seek to address ‘how one is facilitating learning’. Hence, it is argued here that tutor actions intrinsically combine both pedagogical and linguistic components.

6.2.1 Designed and emerging interactional affordances

In the course of the online instantiations of the designed sessions, eight main tutor-tutee interaction types fulfilling specific interactional functions emerged. These have already been described in section 5.4.6 (p. 114):

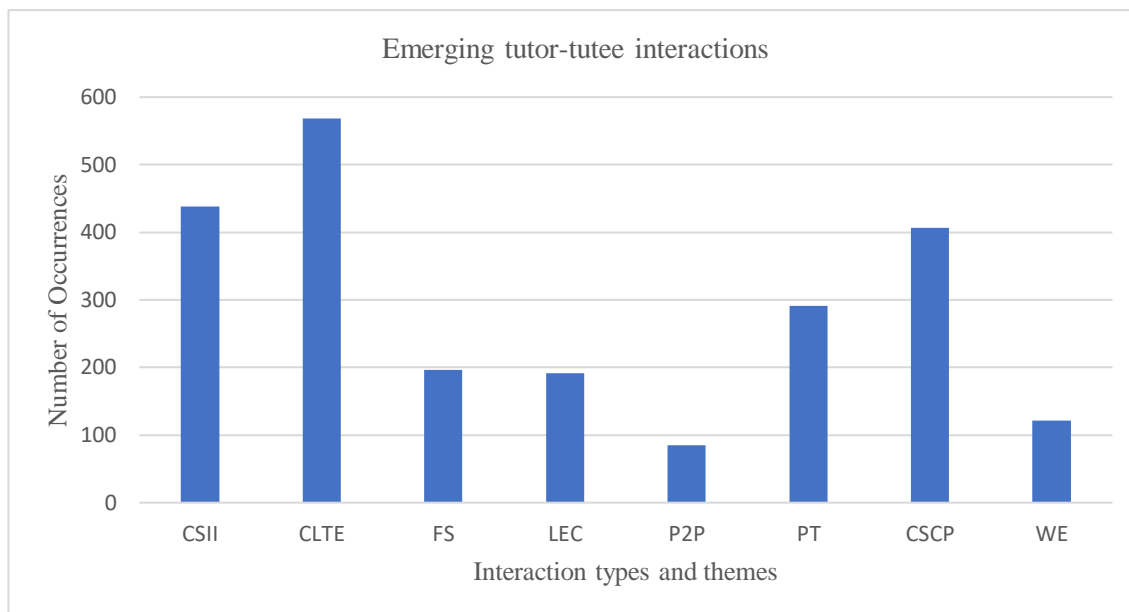
- Co-constructed social & intercultural interactions (CSII)
- Work experience (WE)
- Learning environment and curriculum-based talk (LEC)
- Co-construction of lexical and thematic explanations (CLTE)
- Peripheral talk (PT)
- Focus shifts (FS)
- Co-constructed simple and complex tutee productions (CSCP)
- Peer to peer interaction (P2P)

Emerging interaction types in the project:

The number of occurrences of each emerging interaction type in the corpus (as listed in Appendix F-Table 1, p. 295) is illustrated in Figure 6.4 below. CLTE (co-construction of lexical and thematic explanations) is the most frequent online interaction type that emerged in the study’s corpus. This is attributed to the fact that tutors constantly engaged in recasts as corrective feedback online (as evidenced in Table 6.14: Most frequent tutor feedback functions on p. 150). Second in line is CSCP (co-constructed simple and complex tutee productions) where tutors insisted on complexification of tutee responses with more or less success. CSII (co-constructed social & intercultural interactions) ranks third as both tutors and tutees engaged in discussions about their social lives and cultural contexts. PT (peripheral talk) were not designed in the session plans but generally emerged at the beginning and end of each session as small talk and organisation of asynchronous material exchange and feedback. FS (focus shifts) were also observed as participants deviated from the scripted session plan to either regulate the technical affordances or deal with technical breakdowns. The last three places are taken up by LEC (learning environment and curriculum based talk) as tutors try to understand the tutees’ learning and curriculum constraints as Business and L2 students; WE (work experience) as tutors try to align the VC interaction to the tutees’ imminent work experience in France; and P2P (Peer to

peer) interaction as the tutors try to progressively break away from the ‘tutor-question tutee-answer’ format to a more conversational format where tutees would take the initiative to speak on their own.

Figure 6.4: Macro/Project view: Occurrence of emerging interaction types and themes



The high emphasis on co-construction of lexical and thematic explanations (CLTE) stresses the pedagogical nature of the interactions marked with ‘co-construction of meaning’ as tutors asked for explanations and clarifications and tutees also asked for linguistic clarifications, as indicated by ‘co-constructing linguistic/thematic explanation in the interaction (ELAM06FS_L)’ in Table 5.8 (p. 115).

Co-construction of simple and complex productions (CSCP) was emphasised throughout the interactions by tutors to encourage tutees to actively engage in and progressively complexify their productions as listed below:

- Tutor encourages tutees to answer/participate in the discussion (ELAM16)
- Tutor encourages complexification/hedging strategy (ELAM180_HSC+)
- Tutor encourages clarification (ELAM182_CI+)
- Tutor encourages student to question (linguistic or thematic) (ELAM184_ESQ)
- Tutor encourages free expression based on material/video (ELAM188_FEM)
- Tutor encourages debate of ideas (ELAM190_DI)
- Tutor encourages tutees to recap interaction (ELAM192_ESR)
- Tutor recapitulation of interaction (ELAM14)

These pedagogico-linguistic situations were not necessarily designed in the session plans but were incorporated in the interactions by tutors to regulate the interaction when deemed necessary. However, these pedagogical affordances may or may not have been taken up successfully by the tutees depending on their ability to expand their ideas in L2 and level of confidence, sometimes leading to interaction breakdowns as illustrated in Excerpt 6.1 on p. 144.

Regarding the least frequent interaction type P2P, an observation of the online interactions represented in Table 6.11 reveals that except Emilietr in session 5, all three tutors laid emphasis on peer collaboration with more or less insistence in sessions 4 and 5 as stipulated by the collaborative project pitching session designs (section 6.2) as evidenced in Table 6.11.

Table 6.11: Percentage composition of P2P in each triad

| Categories | Adele ^{TR} | Emilietr | Melissatr | Samiatr |
|------------|---------------------|-------------|-------------|--------------|
| P2P_S1% | 0.00 | 0.00 | 4.49 | 3.77 |
| P2P_S2% | 2.80 | 0.00 | 7.21 | 0.00 |
| P2P_S3% | 7.14 | 0.00 | 0.00 | 27.78 |
| P2P_S4% | 4.92 | 2.08 | 7.55 | 13.04 |
| P2P_S5% | 1.90 | 0.00 | 1.45 | 1.16 |
| P2P_S6% | 0.00 | 0.00 | 0.00 | 0.00 |

In fact, Melissatr and Samiatr encourage P2P interaction right from session 1 and Adele^{TR} and Samiatr encourage P2P interaction in session 3, despite their question-answer format and the fact that P2P interaction was not explicitly designed in these session plans. Session 6 due to its ‘mock interview’ theme did not facilitate any P2P interaction at all for any of the triads. However, despite the initiation of this pedagogical affordance, peer collaboration was not straightforward in the triadic settings, and the tutees’ attempts remained shy. This will be demonstrated in Chapter 7.

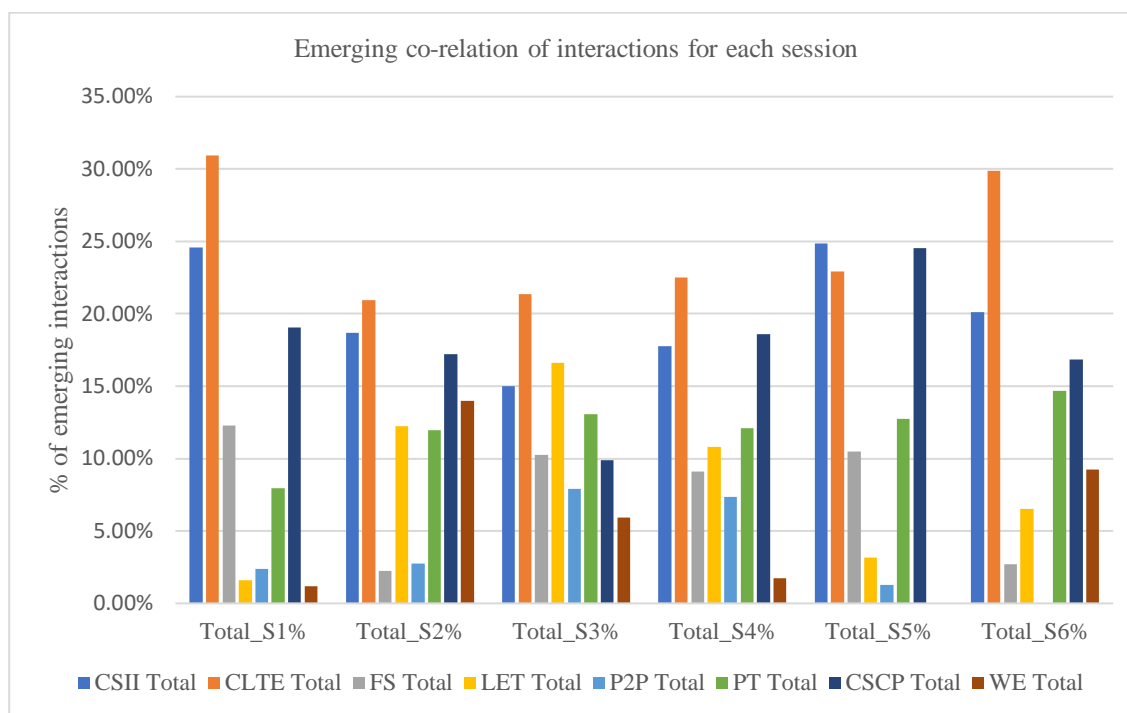
The objects of the session designs gradually changed, notably in sessions 4 and 5 (see section 6.1.4 on p. 134) in the following ways:

- Marked a shift from *FLE* to *FOS* (in sessions 1, 2 and 3) to CLIL (content and language-integrated) Business Management themes (in sessions 4 and 5);
- Laid more emphasis on peer collaboration (sessions 3 and 4) and creative tasks (sessions 4 and 5), marking a transformation from the question-answer format;
- Engaged tutees in Business-related topic as subject specialists, marking a transformation from tutee as L2 learner to tutee as Business specialist. This entailed a transformation for tutor from L2 specialist to L2 scaffolder and Business novice.

Session-wise distribution of emerging interaction types:

The previous section showed the relatively high occurrences of CLTE, CSII and CSCP over the entire project. Figure 6.5 zooms in to the distribution (%) of these emerging interaction types per session. It shows that ‘co-construction of lexical and thematic explanations’ (CLTE) was the highest in sessions 1 and 6 and interestingly both these sessions were based on a question-answer format. This was despite the absence of SamiATR’s sixth session in the corpus. It must be noted that technical breakdowns interrupting the sessions had a negative influence on the interaction quality as such disruptions created a lot of anxiety and stress for both tutors and tutees, either completely blocking the interactions or allowing some intermittent exchanges with very poor sound quality, such that the interaction would divert from the session plan and revolve around how to fix the sound (see Azaoui, 2017). Nevertheless, sessions 2 and 3 that were more descriptive sessions of tutees’ social, academic and work lives show a lower percentage of CLTE as compared to the other interaction types. ‘Learning environment & curriculum-based talk’ (LET) and ‘peripheral talk’ (PT) are comparatively higher in sessions 2 and 3 as tutors try to align their sessions with tutees’ module needs and also try to find out what their needs are as Business students following the tutee-lecturer’s visit to Lyon.

The highest ‘co-construction of simple and complex production’ (CSCP) emerges in session 5. Session 5 was however perceived as a difficult session by CatrionATE (in her post interview) while AidentE (in his post-project feedback) said that this session made him “think” although Excerpt 6.1 below reflects a clear sense of difficulty for AidentE in managing the session 5 tasks. The occurrence of complex productions was the highest in this session **despite the technical disruptions** affecting AnATE’s (second most proficient speaker) participation in MelissATR’s triad. SamiATR’s triad had an uninterrupted interaction and, most importantly, revealed the highest occurrence of CSCP (see Appendix D, p. 295). The emergence of new ideas in this session for SamiATR’s triad was primarily attributed to AngelATE’s (high proficiency) participation. This is discussed in Excerpt 6.2 below. Moreover, a closer look reveals the emergence of a tacit peer co-construction of ideas despite the absence of any explicit instruction from the tutor to collaborate as peers. This might be the reason behind the surprisingly low % of peer-to-peer interaction (P2P) in session 5. P2P is the highest in sessions 3 and 4 on tutors’ insistence and absent in session 6. Work experience-related talk (WE) is low in sessions 1 and 4 and absent in 5 as expected from these sessions’ themes discussed earlier in section 6.1.4 (p. 134).

Figure 6.5: Emerging co-relation of interaction for each session

Session 5 is notable in many respects. The highest number of ‘Response to Tutee Question’ (ELAmT160_RSQ) emerged in this session too (see Appendix E: Table 1, p. 296 and Table 2 p. 299) as this is the only session where tutors explicitly encouraged tutees to formulate questions on a given project. Catriona_{TE} noted in her post interview that this was difficult while Aident_{TE} noted in the course of the session that the task was confusing for him (see Excerpt 6.1).

Excerpt 6.1: Source: Emili_{TR}_S5_online_interaction

Emili_{TR} : (05:39) *pendant (.) pendant que fiona écrit est-ce que tu as des questions toi/ (.) propose (.) vas y\ [...]*

Aident_{TE} scratches his head

Aident_{TE} : (05:55) euh (.) euh (.)

(06:05) *je suis un peu confusé ((incorrect))*

Emili_{TR} :

(06: 06) *tu es un peu confus qu'est-ce qu'il y a/*

(06:08) *\qu'est ce que: : que'st-ce qu'il te pose problème/*

Aident_{TE} :

(06:13) *[hum] euh: : euh: :*

(06:15) *\ça ne se gère pas*

Emili_{TR} :

(05:39) while (.) while fiona writes do YOU have any questions (.) ask (.) go on\ [...]

Aident_{TE} scratches his head

Aident_{TE} : (05:55) euh (.) euh (.)

Aident_{TE} : (06:05) i am a bit confused ((incorrect usage in French))

Emili_{TR} : (06: 06) you are a bit confused what is the matter/

(06:08) \what is it that: : what is bothering you/

Aident_{TE} : (06:13) [hum] euh: : euh: :

(06:15) \i can't manage

Nevertheless, except CatrionATE who found herself at a complete loss, most of the tutees took up the challenge including AidentE. SamiaTR scored the highest in terms of ELAmT160_RSQ among all the triads (see Appendix E: Table 2, p. 299). Furthermore, the actions that composed the interaction type SSCP, namely, scaffolding to encourage complexification (ELAmT180_HSC+) and scaffolding by repeating/adding on tutee production to verify or for corrective feedback (ELAmT194_RSPV) were also the highest for SamiaTR's triad. The unfolding of this interaction, (introduced in Excerpt 6.2), reveals interesting enactments of pedagogical and linguistic actions by SamiaTR and her tutees AngelATE (high proficiency) and Seante (low proficiency). After a few preliminary questions by both tutees on the tutor's hypothetical food truck project, the neighbourhood where it would be installed, the timings etc., SamiaTR sets another questioning task for her tutees:

Excerpt 6.2: Online-interaction SamiaTR_S5

SamiaTR : (20:27) *quel- quelles quelles seraient vos: questions*
 (20:30) *\pour réussir en fait à: à à*
 (20:34) *m'aider à faire à finaliser ce projet*

AngelATE: (20:35) *et euh*
 (20:37) *\vous avez: déjà une idée euh du prix/*
 (20:39) *\pour votre vos hamburgers/*

SamiaTR : (20:48) *euhm: dix euros/*

Seante: (21:17) *et qu'est-ce que c'est le: prix le: autre:*
 (21:22) *\euh: l'autre restaurant/*
 (21:29) *\dans le: camion\ euh: a*

SamiaTR : (20:27) *what what would you ask*
 (20:30) *\to succeed in in in*
 (20:34) *helping me finalise this project*

AngelATE: (20:35) *and euh*
 (20:37) *\do you already have an idea about the price/*
 (20:39) *\for you're your hamburgers/*

SamiaTR : (20:48) *euhm : ten euros/ [...]*

Seante: (21:17) *and what is it the: price the other:*
 (21:22) *\euh the other restaurant/*
 (21:29) *\in the: truck\ euh: a*

The interaction in Excerpt 6.2 takes place as a collaborative brainstorming with both tutees supporting one another. AngelATE asks for the price, Seante follows in and asks for the price in the other food truck, then AngelATE specifies the need to offer a competitive price or better quality for her own burger as compared to the second food truck. SamiaTR does not attribute turns in this interaction. AngelATE, the more proficient tutee, takes the lead, but Seante, the less proficient tutee picks up the cues and adds on. SamiaTR reformulates the tutee productions in the text chat, thus,

proposing recasts without interrupting the student's oral production. These reformulations were mainly noted as verbal phrases, thus, enjoining (coincidentally) the tutees' main module objectives of learning written verbal structures for a French CV.

Sami_{TR}'s recasts in both oral and written (text chat) modes afforded picking up the word "frais" for Seante who interjected to make a lexical query. The text chat also afforded a written trace for recapitulation by tutees, thus, affording smoother productions the second time round. This multimodal (audio, visual and written modes) enactment of the VC affordances enabled:

- Allowing tutees to think while the tutor made herself busy taking notes;
- Reformulating the tutees' oral productions affording instantaneous corrective feedback without interrupting their oral flow;
- Creating a written trace of the interaction as emerging linguistic material to be consulted and retained by tutees offline;
- Bridging the interaction gap between the less and more proficient tutees by allowing each tutee to follow the peer's productions as mediated by the tutor (since peers found it hard to follow each other sometimes (This will be evidenced in Chapter 7)).

This type of interaction largely led by the tutees, albeit dominated by the more proficient of the two tutees, was nonetheless actively scaffolded by the tutor and also benefitted the less proficient tutee. Sami_{TR}'s mediational role facilitated the emergence of the following pedagogico-linguistic affordances:

- collaborative co-construction of interaction by building on each other's ideas;
- complexification and debate of ideas;
- negotiation of meaning;
- corrective feedback.

It marked a clear distinction from the 'tutor-question tutee-answer' format, challenging the tutees to reflect on new ideas while using the interrogative form which was not an easy task for the learners (as suggested by Aiden_{TR}). Learners were endowed with more agency and their expertise as Business specialists was solicited in such content-based tasks.

Hence, the interaction discussed in this section led by Angelate and Seante demonstrated that without the tutees' active participation and initiative, the VC interaction cannot be properly regulated by the tutor (as in Emilie_{TR}'s case in Excerpt 6.1). In a learning environment designed to afford tutees individualised attention, it is not acceptable to be a passive classroom listener as tutors continuously solicit responses from tutees to describe, compare, present arguments and

question critically. These meso level inter-actions were in turn afforded by the moment-to-moment, micro level tutor and tutee linguistic actions that are discussed in the next section.

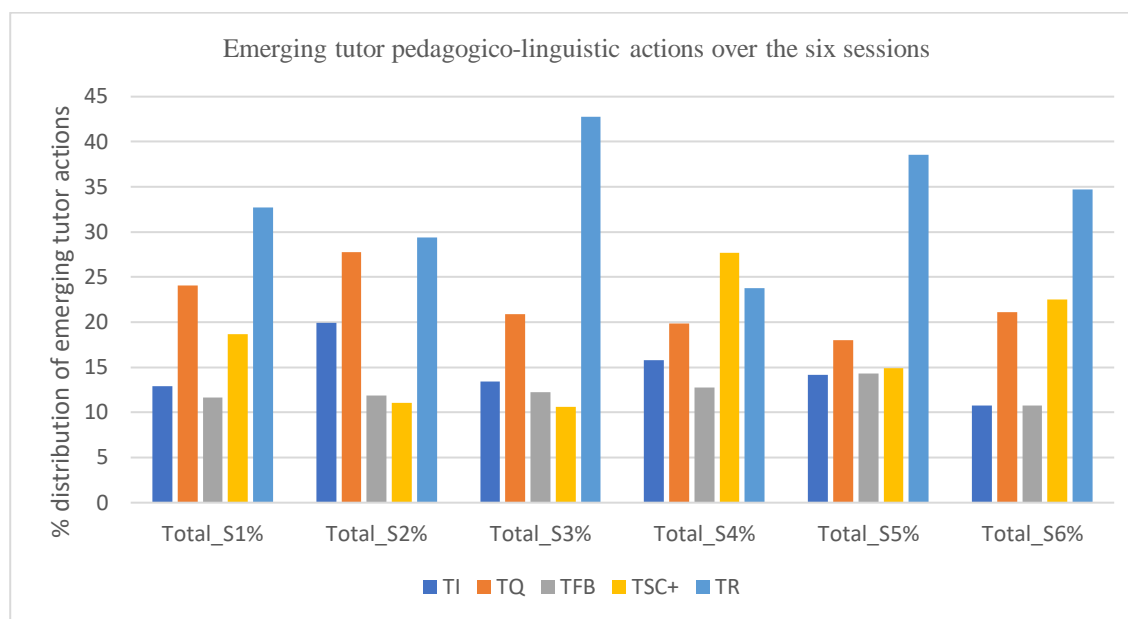
6.2.2 Tutor-enacted pedagogico-socio-linguistic actions

It was established in the previous section that the different sessions project-building format in session 5 called for higher tutee agency. This change in pedagogical affordances triggered the emergence of new linguistic affordances that will be presented here. The tutor-enacted pedagogico-linguistic actions, in this study, are categorised into five interaction functions as already described in Chapter 5 (see Table 5.5, p. 112).

- Instructions as per the session design (TI)
- Questions on session design themes and emerging questions from interaction (TQ)
- Feedback on linguistic and thematic items (TFB)
- Scaffolding to encourage complex productions or clarifications (TSC+)
- Responses (knowledge-based, humorous, etc.) to tutee questions and productions (TR)

Figure 6.6 illustrates the distribution (%) of these emerging tutor pedagogico-linguistic actions (the term pedagogico-linguistic is used here as these linguistic actions are enacted with a pedagogical intent and differ from tutee linguistic actions) over the whole project. The full list of emerging tutor pedagogico-linguistic actions are noted in Appendix E: Tables 1 and 2.

Tutor responses (TR) represent the highest % of enacted tutor actions in all the sessions except session 4. TSC+ surpasses TR in session 4 as tutors solicit more complexification of responses and P2P interactions in this 'kids' b'day party project pitching' session.

Figure 6.6: Emerging tutor pedagogico-linguistic actions**Instruction and question types:**

While TI (tutor instructions) were mainly ‘designed’ in the session plans, two new TI emerge in large numbers in the online interactions, namely turn-giving and turn-closing. The most frequent tutor instructions in the study’s corpus are noted in Table 6.12 below:

Table 6.12: Most frequent tutor instruction functions

| Instruction type | Code | % of tutor instructions |
|---|------------------|-------------------------|
| Turn-giving | ELAmT110_TG | 29.17% |
| Announcing new task (from session design) | DLAmT102_ANT/DSP | 22.17% |
| Turn-closing | ELAmT108_Tclo | 17.86% |

Tutors were constantly obliged to attribute turns in triads as the tutees waited for their turn instead of taking the initiative to participate freely in the exchanges (this is corroborated by Etienne_{TR} in Excerpt 7.13 in the next chapter). This sometimes made the triadic interaction quite laborious for the tutee and inhibited a free-flowing conversation.

The four most frequent question types that stand out in the corpus are listed in Table 6.13. Emerging questions from the interaction (ELAmT132_EQI) is the most frequent question type. Adele_{TR} scores the highest among all the tutors in this regard as she regularly takes the liberty to flout the session plan (notably session 3) in order to address her tutees’ interests and facilitate the emerging interaction accordingly. Adele_{TR}’s stance becomes clear in session 5 when Alannah_{TE} apologises for wasting the interaction time on a point that she disagrees on with Adele_{TR} regarding the Business project-pitching. Adele_{TR} reassures Alannah_{TE} by saying that the emerging tutee

productions are more important for her than completing the designed activities (evidenced in Excerpt 6.3).

Excerpt 6.3: Online-interaction Adele_{TR} session 5

Adele_{TR} : (26 :53) ((*rire*)) *tu sais moi les les exercices/*
 (26 :55) \c'est pas grave si on les finit ou pas
 (26 :57) \l'important c'est que vous: vous: .tsk
 (27 :01) \que vous vous exprimez

Adele_{TR} : (26 :53) ((laughter)) you know I the the exercises/
 (26 :55) \it's ok if we don't finish them
 (26 :57) \it's more important that you: you: .tsk
 (27 :01) \that you you express yourself

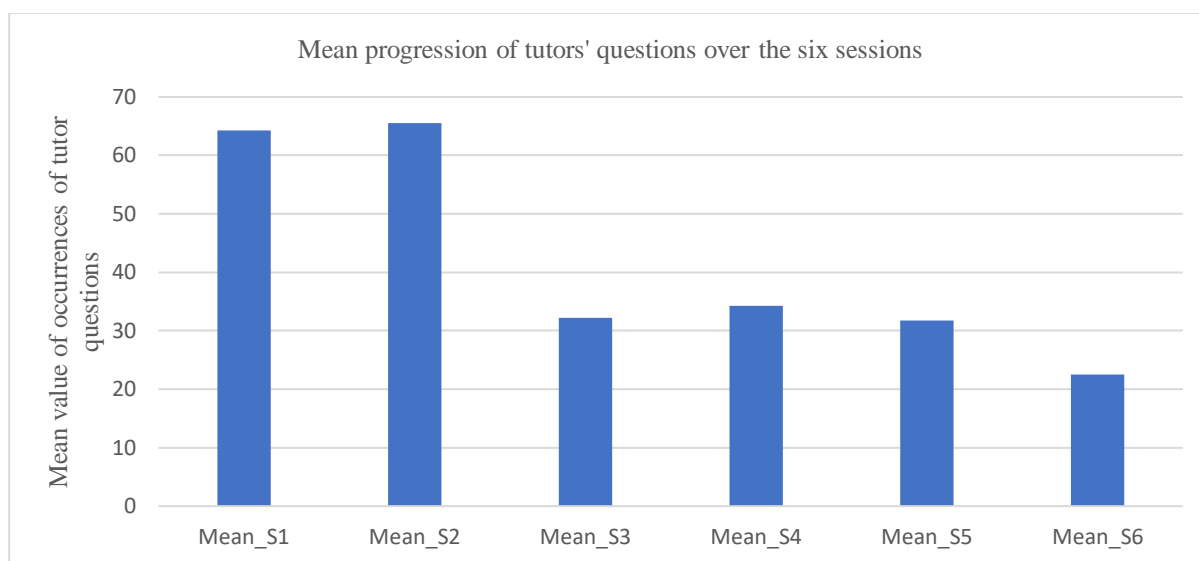
Although the other tutors stick to the session design questions, they gradually take the liberty to adapt their questions to their tutees' needs, notably in session 6's mock interview.

Table 6.13: Most frequent tutor question functions

| Question type | Code | % of tutor questions |
|---|-----------------|----------------------|
| Emerging question from interaction | ELAmT132_EQI | 20.51 |
| Question on tutees' life/cultural context | E/DLAmT124_QSLC | 13.02 |
| Checking student comprehension | ELAmT136_CC | 12.13 |
| Question incomprehension | ELAmT138_QI | 11.93 |

The second most frequent question type is 'on tutees' life/cultural context' as tutors constantly linked the designed questions to the tutees' cultural context and also gave examples from the French context. The last two question types involving 'checking student comprehension' and 'question incomprehension' reflect the difficulty tutors faced in interacting with low proficiency tutees. Adele_{TR} scores the highest on these two accounts too as her tutee Alannah_{TE} had a very anglicised accent in French with low accuracy and also took an active initiative to express her many ideas. This resulted in Adele_{TR} asking for frequent clarifications.

Figure 6.7 reveals that the first two sessions were comparatively high on tutor questions as compared to the latter sessions. This corroborates the analysis of the session designs in section 6.1.4 (p. 134) according to which the 'tutor-question tutee-answer' format that dominated the first two sessions was replaced by an effort to encourage more peer collaboration (in sessions 3 and 4) as already evidenced in Figure 6.5, p. 144 as well as project-pitching themes calling for higher complexity in expression and even tutee questions (in sessions 4 and 5). Session 6 (mock interview) does not support this conclusion as Samia_{TR}'s sixth session is absent from the corpus.

Figure 6.7: Mean value of occurrences of tutor questions over the six sessions**Types of feedback:**

The two most frequent types of feedback in the study's corpus are shown below in Table 6.14. 'Repeating/adding on student production to verify or for corrective feedback' and 'Repeating/adding on own production to facilitate student comprehension' are in fact the two most frequent tutor pedagogical actions in the study's corpus after backchannelling. Tutors constantly 'repeat/add on student production to verify' as they constantly tried to guess what the tutees were saying in their erroneous pronunciations and syntactic structures. Moreover, this also facilitated corrective feedback in the form of recasts as tutors reformulated the tutees' productions using correct French. However, there is no indication of how much the tutees retained from these online corrections as they already grappled with a lot of cognitive load during the online interactions.

Table 6.14: Most frequent tutor feedback functions

| Feedback type | Code | % of tutor feedback |
|---|----------------|---------------------|
| Repeating/adding on student production to verify or for corrective feedback | ELAmT194_RSPV | 30.05 |
| Repeating/adding on own production to facilitate student comprehension | ELAmT196_TRPFC | 18.42 |

Three more types of synchronous feedback that emerged in the corpus as evidenced in Table 6.15. Tutors were generous with positive feedback, as seen in Table 6.15, to encourage the tutees' online participation. Erroneous pronunciation and the lack of vocabulary are dealt with quite often. The other frequent corrective feedback comprised explaining terms and concepts to tutees, for example, 'the work rights and conditions in France' or specific vocabulary such as, "*un goûter*" (a snack) or "*un camion restaurant*" (a food truck).

Table 6.15: Other frequent tutor feedback functions

| Feedback type | Code | % of tutor feedback |
|--|------------------|---------------------|
| Positive feedback | ELAmT179_FBPV | 13.02 |
| Corrective feedback vocabulary/pronunciation | ELAmT174_CFB_V/P | 12.28 |
| Corrective Feedback Explanation | ELAmT175_CFB_E | 10.60 |

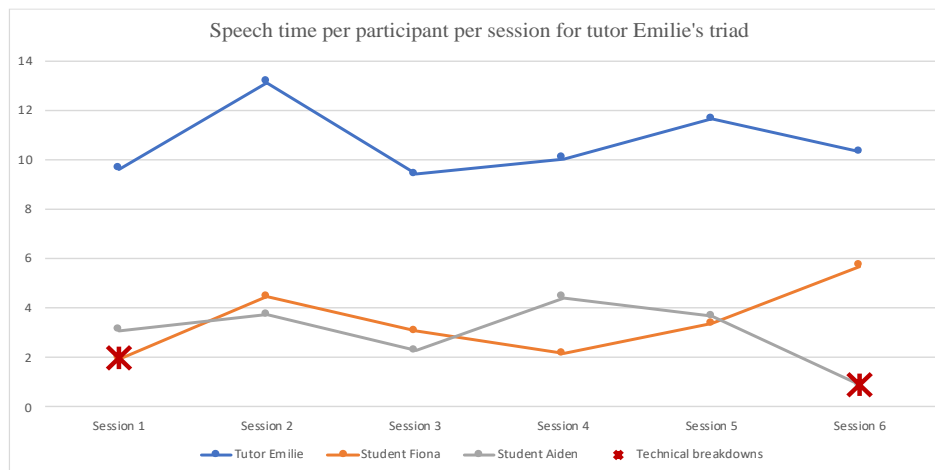
Scaffolding:

Encouraging complexification of tutee responses is the most frequently enacted strategy by tutors. Mainly absent from the second and third sessions, it attains the highest occurrence in the fourth session (41%) (see Appendix E-Tables 1 and 2) as in this first attempt at collaborative project-pitching design, tutors encouraged tutees to complexify their responses and come up with deeper reflective responses. As already shown in Figure 6.5 (p. 144), ‘Encouraging Student to collaborate with Peer (linguistic or thematic)’ or P2P is the highest in session 4 as tutors made a deliberate attempt to include peer-to-peer collaboration in the session design. Tutors often engaged in ‘encouraging clarification’ to help tutees express their ideas in different ways. Apart from a few attempts in the first and third sessions, ‘Debate of ideas’ was initiated in sessions 4 and 5 by all tutors except Emili_{TR} whose tutees struggled a bit with the online interactions and even more with the complexification of their responses due to their low proficiency. The four most prominent scaffolding actions in the corpus are noted in Table 6.16.

Table 6.16: Most frequent scaffolding functions

| Scaffolding type | Code | % of tutor scaffolding |
|--|---------------|------------------------|
| Encouraging complexification/hedging strategy | ELAmT180_HSC+ | 41.46 |
| Encourages student to collaborate with peer (linguistic or thematic) | ELAmT198_ESCP | 17.07 |
| Encouraging clarification | ELAmT182_C1+ | 13.01 |
| Encouraging debate of ideas | ELAmT190_DI | 10.98 |

As already mentioned, the pedagogical and linguistic affordances in sessions 4 and 5 were more challenging as they solicited expression of creative ideas from tutees. These sessions also presupposed a high level of L2 proficiency for tutees as they were expected to deal with complex themes and interact meaningfully as Business specialists rather than just L2 learners. However, as evidenced by Figure 6.8, Emili_{TR}'s tutees failed to engage with this complexity or peer collaboration, as both Fion_{TE} and Aiden_{TE} displayed low proficiency both in terms of L2 comprehension and expression. The graph below shows that, unlike the other three triads, Emili_{TR} occupies a lot more floor time as compared to her tutees.

Figure 6.8: Speech time per participant over the 6 sessions for Emilie_{TR}'s triad.

In a group where tutee agency is relatively low like in the case of Aiden_{TE} and Fiona_{TE} in Emilie_{TR}'s group or Catriona_{TE} in Adele_{TR}'s group, the interactions tended to be tutor or peer-dominated despite the tutees being aware of this as expressed in Aiden_{TE} and Catriona_{TE}'s post-project VoiceThread presentations. In the other triads, as noted in Figure 7.1 (p. 191), an asymmetry in the tutees' will to take initiatives is observed, with one tutee often dominating the other to a greater or lesser extent. Shy tutees, therefore, may always participate less due to VC-induced anxiety.

Response types:

Other response types, apart from feedback (noted above) and the frequent backchannelling (31.82%), that emerged were managing the VC material (ELAmT146_MMR), 'friendly or humorous exchanges with tutees' (ELAmT140_FRSP) and 'information exchange and comparison of their respective contexts and cultures' (ELAmT144_LDOC) with tutees. 'Response to tutee question' (ELAmT160_RSQ) is another type of tutor response that emerged homogenously across all triads in sessions 4 and especially 5 (weak in Emilie_{TR}'s triad) as the session designs imposed it upon the tutees to formulate questions for tutors on the spot. Table 6.17 notes some of these emergent tutor response types.

Table 6.17: Emerging tutor response types

| Response type | Code | % of tutor responses |
|--|---------------|----------------------|
| Managing the VC material | ELAmT146_MMR | 20.55 |
| Friendly or humorous exchanges with tutees | ELAmT140_FRSP | 12.61 |
| Information exchange and comparison of contexts and cultures | ELAmT144_LDOC | 6.67 |
| Response to tutee question' | ELAmT160_RSQ | 3.40 |

These tutor enacted pedagogico-linguistic actions functioned in close interconnection with the tutee linguistic actions that will be studied in the next section.

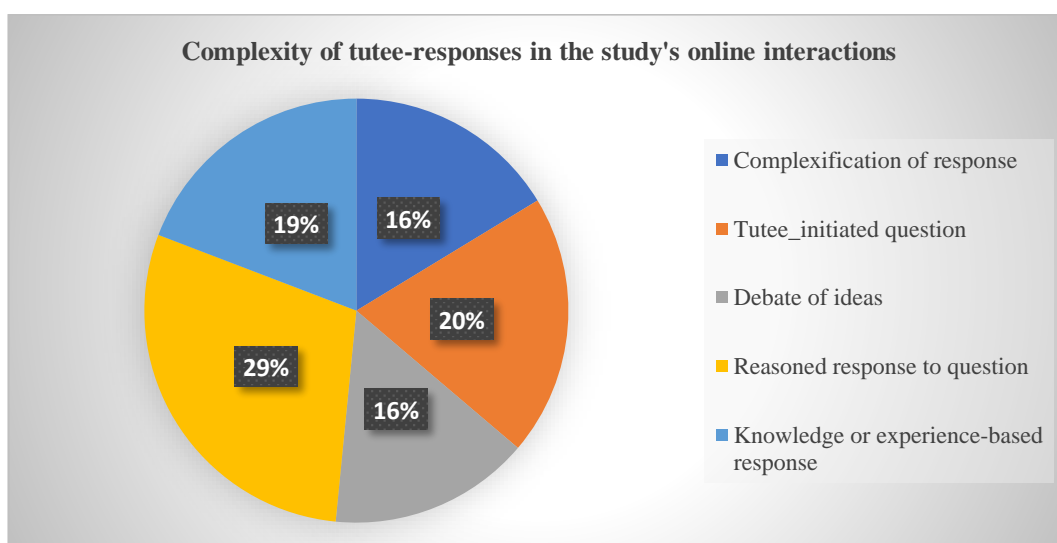
6.2.3 Tutee-enacted socio-linguistic actions

Unlike the literature focusing mainly on the tutor-regulated nature of the VC interactions, this study emphasises the significant influence of tutee-regulation in VC interactions.

The session designs 4 and 5 encouraged tutees to act as specialists of the activity's intended object as they co-construct their ideas with the help of tutor scaffolding, as illustrated in Excerpt 6.2 (p. 145) Samia_{TR} session 5 before.

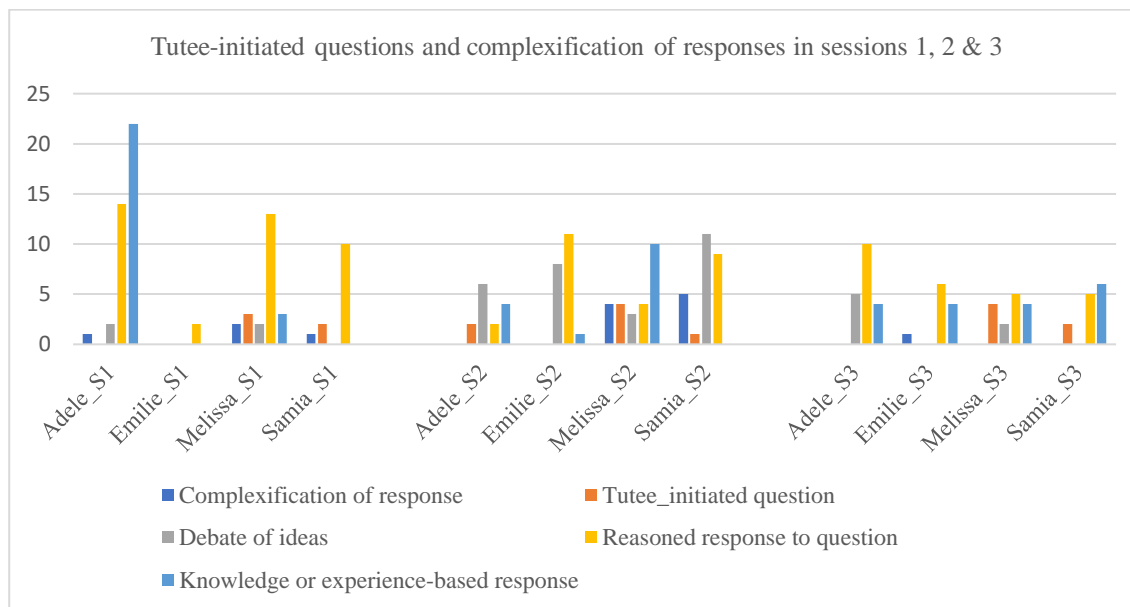
At the moment-to-moment interaction level, 48 micro level linguistic action types were enacted by tutees (see Appendix F: Table 1, p. 302 and Appendix F: Table 2, p. 305). Five of there were question-oriented actions and the remaining 43 were response-oriented actions, thus, indicating a clear dominance of responses to questions for tutees. These linguistic actions addressed the themes already discussed in section 6.1.4 (p. 134). Figure 6.9 represents the distribution (%) of different degrees of complexity in tutee responses that reflected greater tutee initiative than simple yes/no or descriptive responses. These are 'knowledge or experience-based responses' (19% or 80 occurrences), 'complexification of responses' (16% or 67 instances) when encouraged by tutors to reformulate production as well-reflected answers; 'tutee-initiated questions' (20% or 83 instances) that was perceived as difficult by some tutees (for example, Catriona_{TE} and Aiden_{TE}); 'debate of ideas' (16% or 66 times) either with peer or with tutor on proposed themes; 'reasoned response to questions' (29% or 122 occurrences) containing the strings "parce que" or "alors que".

Figure 6.9: Complexity of tutee responses in the study's online interactions

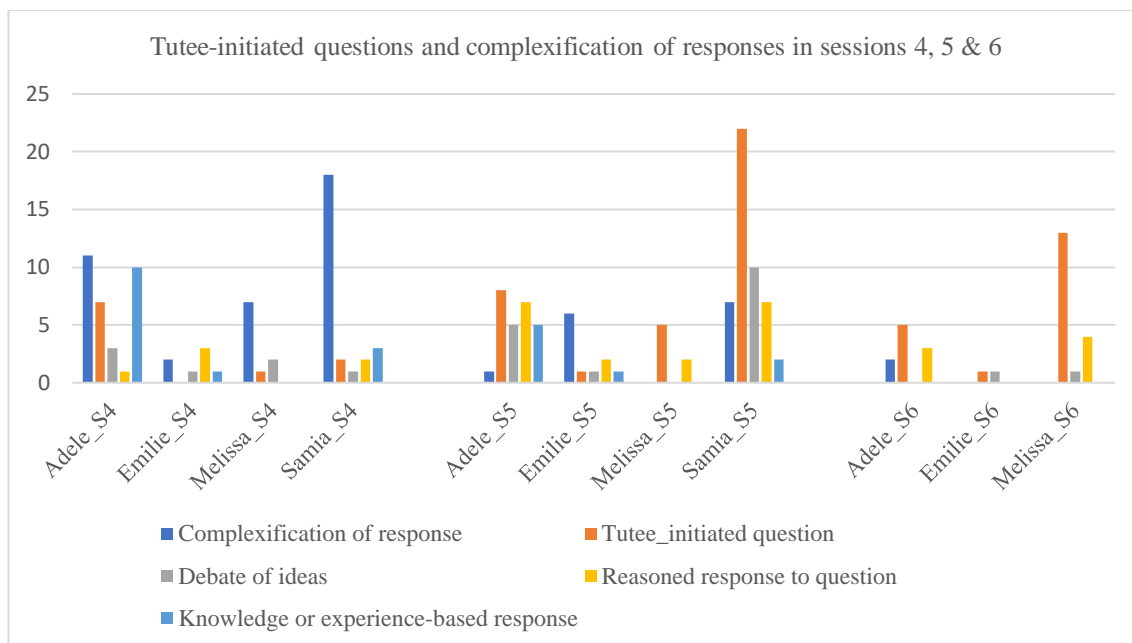


A session-wise distribution of these different types of complexities in tutee response are noted in Figure 6.10 and Figure 6.11. Knowledge or experience-based tutee responses are relatively quite high in Adele_{TR}_S1 and Adele_{TR}_S4. This is because Alannah_{TE} showed high inter-cultural knowledge despite her low accuracy. This afforded an interesting exchange of inter-cultural facts on working hours, paid holidays, bank holidays, retirement age, minimum wage, coffee breaks in France and Ireland in session 1 in Adele_{TR}'s triad. In session 4, Alannah_{TE} took the lead to explain Business-related terms to her tutor. Reasoned responses and knowledge or experience-based responses occurred in session 3 as the emphasis in this session was on the importance of work experience for the tutees' professional development.

Figure 6.10: Tutee-initiated questions and complexification of responses in sessions 1, 2 & 3



Sessions 4 and 5 witnessed a sudden upsurge in tutee complexification of responses and tutee-initiated questions respectively (see Figure 6.11). This is corroborated by the description of Samia_{TR}_S5's Excerpt 6.2 (p. 145). Except in session 4, Emilie_{TR}'s triad's efforts at complexifying their responses were quite reserved with no tutee-initiated questions. This is attributed to the tutees' low proficiency levels and lack of ideas and also the tutor's relatively long explanations using an elevated register, thus, probably rendering comprehension for her low proficiency tutees difficult. In the other triads, it was inevitably the more proficient tutee who took more initiatives except in Adele_{TR}'s case where the floor time was dominated by the highly-motivated Alannah_{TE} paired with Catriona_{TE} who was linguistically more accurate but her shyness, lack of ideas and the unresolved technical breakdowns kept her from participating.

Figure 6.11: Tutee-initiated questions and complexification of responses in sessions 4, 5 & 6

The progression of the session designs as described in section 6.2.2 and the distribution of tutee responses as evidenced by Figure 6.10 and Figure 6.11 suggest that tutors solicited tutees to move from descriptive and reasoned responses of one's social, educational and work environments to the co-construction and critical expression of creative ideas based on Business project-pitching. Broadly, the tutees engaged in answering the tutors' questions more than questioning themselves. As shown in Table 5.6 (p. 113) in Chapter 5, tutee responses ranged from simple descriptive, opinion-based responses to reasoned responses and eventually more complex productions manifesting expression of more critical and creative thoughts and ideas as the sessions progressed. Constrained responses or incorrect responses were also very much part and parcel of these interlanguage expressions. The attempts at peer collaboration and formulating questions was largely induced at the individual tutors' initiatives to try to balance out the tutor-tutee asymmetrical relation and introduce a more conversational setting. Although this challenge was taken up by the more proficient or confident tutees, it resulted in interactional breakdowns for the shy and low proficiency tutees. This will be discussed in the next chapter.

6.3 Designed synchronous multimodal affordances

The session level linguistic and pedagogical objectives described in the above sections were enacted in line with the designed technological affordances. The occurrences of the observable enactments of technological affordances by the tutors and tutees as they appeared in the recordings of the online interaction were analysed as multimodal action possibilities or affordances.

The three categories of technological affordances designed in Visu, namely information and communication affordances (I&CA), temporal and traceability affordances (T&TA), and navigation and spatial affordances (N&SA) were enacted by participants in both the synchronous and the neighbouring asynchronous VC activities. For instance, the designed technological affordances, such as sharing of documents online by tutors (I&CA), using text chat (T&TA), and the asynchronous sharing of multimodal feedback (N&SA) by tutors while interacting on Visu involved the enactment of specific technological affordances with audio, visual and textual modes of interaction. These multimodal affordances will be investigated here.

A total of 381 occurrences of enactments of the aforementioned technological affordances were observed in the study's corpus. Table 6.18 below shows the four triads' enactment (as % of the total number of occurrences) of all the Technological Affordances (TA) combined in the synchronous mode over the six sessions.

Table 6.18: Occurrences (%) of all Technological Affordances (TA) enacted by triads over the 6 sessions

| TA enacted by triads/session | S1 (%) | S2 (%) | S3 (%) | S4 (%) | S5 (%) | S6 (%) | Total (%) |
|------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|
| Triad_Adele _{TR} | 2.10 | 6.04 | 2.89 | 4.72 | 5.51 | 9.45 | 30.71 |
| Triad_Emili _{TR} | 3.94 | 2.10 | 3.41 | 2.10 | 2.62 | 0.79 | 14.96 |
| Triad_Meliss _{TR} | 5.25 | 3.15 | 5.51 | 5.77 | 7.09 | 3.67 | 30.45 |
| Triad_Sami _{TR} | 6.04 | 2.10 | 2.89 | 3.41 | 9.45 | 0.00 | 23.88 |
| Total (%) | 17.32 | 13.39 | 14.70 | 16.01 | 24.67 | 13.91 | 100.00 |

It is observed that triad_Sami_{TR} (9.45%) and triad_Adele_{TR} (9.45%) enact the TA the most frequently in sessions 5 and 6 respectively. Additionally, triad_Adele_{TR} (total 30.71%) and triad_Meliss_{TR} (total 30.45%) enact the TA most frequently in the whole distinguished corpus. However, the online interactions reveal that the high use of T&TA or the text chat affordance in sessions 3, 4 and 5 for triad_Meliss_{TR} was enacted in order to overcome sound breakdown. Technical breakdown was one of the main challenges constraining these VC interactions and text chat was used as an alternate mode of communication. It was further observed that tutor enactments of TA differed from tutee enactments. This will be analysed in the next section.

6.3.1 Participants' enactment of designed technological affordances

Tutor enactments of TA: Tutor enactments of technological affordances (TA) amounted to 278 instances out of the total 381 occurrences specified above, thus, showing a clear tutor-dominance. Table 6.19 indicates the four tutors' enactment (%) of the three types of TA over the six sessions

(S1 to S6). Tutors' enactments of TA in the synchronous channel over the six sessions reveals the importance of the pedagogical use of certain types of TA as elucidated below.

The T&TA type of affordances were the most frequently enacted by three of the four tutors: 24.85%, 22.09% and 16.26% for tutors Adele_{TR}, Samia_{TR} and Melissa_{TR} respectively. Only the text chat affordance within the synchronous T&TA category has been listed here (error markers as T&TA for tutors have not been listed here as they were not recorded in the corpus). An exception is observed in tutor Emili_{TR}'s case. Her use of I&CA (10.43%), unlike her peers, exceeds her use of T&TA (7.36%). A close observation of Tutor Emili_{TR}'s use of I&CA reveals that she systematically shares the designed questions and instructions from the session plan onscreen with her tutees, thus activating the visual/orthographic mode along with the oral mode for questions and instructions. Her peers, however, activate this I&CA only in case of student incomprehension or interaction breakdown.

Table 6.19: Tutors' use of the technological affordances at the meso (session) levels

| Tutors' use of TA/session | S1 % | S2 % | S3 % | S4 % | S5 % | S6 % | Total % |
|------------------------------|------|------|------|------|------|------|--------------|
| Adele _{TR} (I&CA) | 1.23 | 0.92 | 0.61 | 0.31 | 0.61 | 0.31 | 3.99 |
| Adele _{TR} (T&TA) | 1.23 | 6.13 | 2.45 | 2.76 | 3.99 | 8.28 | 24.85 |
| Adele _{TR} (N&SA) | 0.00 | 0.00 | 0.00 | 0.00 | 0.31 | 0.00 | 0.31 |
| Emili _{TR} (I&CA) | 1.53 | 2.45 | 3.07 | 1.23 | 1.53 | 0.61 | 10.43 |
| Emili _{TR} (T&TA) | 2.45 | 0.61 | 0.61 | 1.53 | 1.53 | 0.61 | 7.36 |
| Emili _{TR} (N&SA) | 0.00 | 0.00 | 0.31 | 0.00 | 0.00 | 0.00 | 0.31 |
| Melissa _{TR} (I&CA) | 2.15 | 1.84 | 1.53 | 0.61 | 2.15 | 0.31 | 8.59 |
| Melissa _{TR} (T&TA) | 2.15 | 1.23 | 4.60 | 1.84 | 3.07 | 3.37 | 16.26 |
| Melissa _{TR} (N&SA) | 0.31 | 0.00 | 0.31 | 0.00 | 0.00 | 0.00 | 0.61 |
| Samia _{TR} (I&CA) | 0.31 | 0.61 | 1.53 | 0.31 | 1.84 | 0.00 | 4.60 |
| Samia _{TR} (T&TA) | 5.21 | 2.15 | 1.23 | 4.29 | 9.20 | 0.00 | 22.09 |
| Samia _{TR} (N&SA) | 0.31 | 0.00 | 0.31 | 0.00 | 0.00 | 0.00 | 0.61 |

Tutee enactments of TA: A total of 103 occurrences of tutee enactments of TA were observed. Table 6.20 below indicates the tutees' enactment (%) of the technological affordances at the meso (session) levels over the six sessions (S1 to S6). A few tutees enact the TA more than others with the tutees listed in the grey rows generally taking more initiatives in the peer dyads (for each triad). An exception is noted in Samia_{TR}'s case where Seante_{TE} (white row) enacts the TA more than Angela_{TE}. Alannah_{TE} in Adele_{TR}'s triad and tutees Ana_{TE} and Alejandra_{TE} in Melissa_{TR}'s triad are the most active TA users. However, as noted previously, Melissa_{TR}'s triad's high use of TA

was mainly triggered by technical breakdowns and this was also the case for her tutees. Alejandra_{TE}'s use of TA suddenly rises in session 3 (10.6%) due to technical breakdown and in session 4 (7.77%) because the session design required the tutees to take notes using text chat. Emili_{TR}'s tutees have roughly the same (medium/low) proficiency levels and they both show a relatively low level of TA use as well. While Aiden_{TE} makes no apparent use of the TA at all, Fion_{TE} uses it parsimoniously. Seant_{TE}'s enactment of TA, however, is the highest for session 3 (5.83%) although he did not suffer any technical breakdown during this session.

Table 6.20: Tutees' enactment of technological affordances at the meso (session) level

| Tutees' enactments of TA/session | S1 (%) | S2 (%) | S3 (%) | S4 (%) | S5 (%) | S6 (%) | Total (%) |
|---|---------------|---------------|---------------|---------------|---------------|---------------|------------------|
| Alannah _{TE} _Adele _{TR} | 0.00 | 4.85 | 2.91 | 6.80 | 3.88 | 8.74 | 27.18 |
| Catrion _{TE} _Adele _{TR} | 0.97 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.97 |
| Fion _{TE} _Emili _{TR} | 0.97 | 0.97 | 0.97 | 0.00 | 0.97 | 0.00 | 3.88 |
| Aiden _{TE} _Emili _{TR} | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| An _{TE} _Meliss _{TR} | 1.94 | 2.91 | 0.97 | 7.77 | 11.65 | 2.91 | 28.16 |
| Alejandra _{TE} _Meliss _{TR} | 0.97 | 0.00 | 10.68 | 7.77 | 0.97 | 0.00 | 20.39 |
| Angel _{TE} _Samia _{TR} | 1.94 | 0.00 | 0.00 | 5.83 | 0.97 | 0.00 | 8.74 |
| Seant _{TE} _Samia _{TR} | 2.91 | 0.00 | 5.83 | 1.94 | 0.00 | 0.00 | 10.68 |
| Total | 9.71 | 8.74 | 21.36 | 30.10 | 18.45 | 11.65 | 100.00 |

In order to understand these figures, a scrutiny of the types of TA enacted by the tutees during the synchronous interactions is taken up. Table 6.21 reveals the comparative frequency of the tutees' use of the I&C, T&T and N&S affordances.

Table 6.21: Tutees' use of the three types of technological affordances in the VC system

| Tutees' use of the 3 types of TA | I&CA frequency (%) | T&TA frequency (%) | N&SA frequency (%) |
|--|-------------------------------------|-------------------------------|-------------------------------|
| Alannah _{TE} _Adele _{TR} | 0 | 21.36 | 5.83 |
| Catrion _{TE} _Adele _{TR} | 0 (Catrion _{TE} _S6 brkdn) | 0.97 | 0.00 |
| Fion _{TE} _Emili _{TR} | 0 | 1.94 | 1.94 |
| Aiden _{TE} _Emili _{TR} | 0 | 0.00 | 0.00 |

| Tutees' use of the 3 types of TA | I&CA frequency (%) | T&TA frequency (%) | N&SA frequency (%) |
|----------------------------------|---------------------|--------------------|--------------------|
| AnATE_MelissATR | 0 | 24.27 | 2.91 |
| AlejandraTE_MelissATR | 0 | 19.42 | 0.97 |
| AngelATE_SamiATR | 0 | 4.85 | 3.88 |
| SeanTE_SamiATR | 0 (SeanTE_S2 brkdn) | 2.91 | 7.77 |
| Total | 0 | 75.73 | 23.27 |

In this table, the tutees' enactment of I&CA are shown as 0, as unlike the tutors, they did not have access to Visu's document sharing affordances. However, a crucial I&CA involved activating the VC platform by checking the proper functioning of the principal and auxiliary materials in the pre-session phase to ensure proper communication. Without this affordance, there would be no communication as indicated in two cases, CatrionATE_S6 brkdn and SeanTE_S2 brkdn in Table 6.21. Failure to connect due to I&CA breakdown in the pre-session check phase resulted in zero interaction for the two tutees for the entire duration of the session. Comparatively, the relatively higher tutor-enactment of I&CA (see Table 6.19, p. 157) reflects tutor-dominance with respect to I&CA in synchronous communication. This shows that the tool conceptors had accorded a more teacher-centred design to the tool that in turn influenced the pedagogical and linguistic affordances at the meso and macro levels of the project design as documents and feedback could be shared unidirectionally in the asynchronous mode by tutors only.

Furthermore, it is noted that the tutees' use of N&SA is higher than their use of I&CA while the opposite holds true for the tutors. SeanTE's particularly high use of N&SA, unlike his peers who use the T&TA (text chat) more frequently, is a case in point. A micro analysis of the online sessions reveals that the more frequent enactment of N&SA by tutees (see Table 6.21, p. 158) in the synchronous channel was due to the fact that tutees navigated online for lexical search to facilitate their oral productions. Although tutees did solicit the tutors' aid to express a word or an idea in L2, they simultaneously tried to look it up online rather than engage in negotiation of meaning with the tutor. For example, SeanTE in session 1 enacts the N&SA to look up the French equivalent of the word "manager" online, and thus, proposes "*exécutif*" then "*gestionnaire*". This N&SA was not explicitly designed in Visu but tutees invariably enacted it by navigating the internet for lexical search.

A closer observation is proposed in the next section of the online interactions revealing the linguistic and pedagogical objectives that trigger the enactment of these three types of VC-specific technological affordances.

6.3.2 Information & Communication affordances (I&CA)

The designed and emerging multimodal actions (using audio, video and text) for VC L2 learning as well as the affordances that exist in the environment will be explored in this section. The different types of linguistic and pedagogical actions that I&CA helped mediate are listed and discussed below.

a. Questions & instructions: It was observed in Table 6.19 (p. 157) that EmiliETR's use of I&CA was the highest among the four tutors. This was because she not only used Visu's document sharing functionalities like the other tutors to enrich the synchronous interactions, but she also systematically shared the questions and instructions on screen with her tutees. For example, EmiliETR systematically resorted to sharing the key words on screen in session 4 (09:04) to help her tutees even before they started speaking. This might have been done to trigger participation as both tutees were silent for some time after EmiliETR's instructions for the 'kid's b'day party' project-pitching. According to EmiliETR's peers, the association of the graphic mode to supplement the phonic modes defeated the purpose of exposing the tutees to the challenges of a spontaneous oral interaction.

b. Keywords: EmiliETR also shared keywords right from the beginning unlike her peers who introduce them to provide vocabulary in case of interaction breakdown. Once again, this may have been motivated by the fact that EmiliETR's tutees, FionATE and AidentE were low proficiency speakers and lacked the basic vocabulary sometimes to express their ideas.

c. FLE exercise: In Session 3, tutors introduced FLE type exercises and enabled different degrees of multimodality. Unlike EmiliETR who showed the questions and asked her tutees to read them (they do so silently), SamiATR displayed the questions on screen and read them out aloud, whereas MelissATR did not display the questions onscreen at all, but offered only phonic input to tutees. It was, however, not possible to determine which of the three means was the most suited for the tutees.

d. Video & images: Sharing image/video onscreen to facilitate student comprehension and trigger production was a mostly tutor-enacted I&CA. Onscreen sharing of image and video (13 instances) were complemented with onscreen display of keywords and questions (25 instances) programmed by the tutors in the pre-session design phase. Shared videos, images, questions/instructions and keywords appeared on the right-hand chat pane for the tutees. However, tutors gradually came to the conclusion that videos may be shared to scaffold participant interaction rather than presenting them as an oral comprehension activity.

e. Asynchronous I&CA: A remarkable affordance that emerged in the asynchronous communication was the use of the flipped approach by Melissa_{TR} who shared videos before the session in order to allow her tutees to come prepared. This was particularly useful in session 3 as Melissa_{TR} discovered during the session that Ana_{TE} (high proficiency) was not interested in the job announcement that she had shared with her beforehand. This allowed Melissa_{TR} to readapt her session to her student's needs and preferences on the spot instead of imposing the same job announcement (chosen for the common session plan) on their tutees like the other tutors. However, even though the flipped approach benefitted the more proficient tutee Ana_{TE}, it did not help the less proficient tutee Alejandra_{TE} understand the video material better. This corroborated the question of adapting the material to the student's proficiency level as being crucial in pedagogical design.

An affordance that had not been enacted directly by the participants is a tutee-initiated flipped approach wherein documents shared by the tutees before the session provide the base for the interaction. This could be more beneficial than tutor-initiated flipped approach in such individualised learning environments. Preparing a CV and cover letter for work experience in France were part of the main module objectives. Tutee agency could have been solicited by encouraging them to bring their own job offer ads and come prepared to describe the job and present arguments about their suitability for the job. This affordance was not perceived by the tutors in general although it was indirectly enacted by tutors Melissa_{TR} and Adele_{TR} when they based their session 6 mock interview questions on the job announcements their tutees had chosen to do their main module assignments on. However, this had been possible only because their tutees had taken the initiative to enact the asynchronous I&CA albeit outside Visu (using email) to share their assignments with the tutors for corrective feedback. I&CA was also used asynchronously by Adele_{TR} to communicate cultural material informally to her tutees, notably French songs with lyrics. She also suggested in Session 2 to her tutees that they share their respective playlists on Spotify to exchange French and English songs.

6.3.3 Traceability & Temporal affordances (T&TA)

The text chat function was the most frequently enacted traceable affordance that supplemented the oral mode with written clarification offering visual orthographic aid/cue as instantaneous corrective feedback. Tutors' use of text chat in general (230 occurrences in total) was higher than tutees' (76 occurrences in total). One of the most prominent features of these multimodal interactions (oral, visual and text modes) over the entire duration of the project in this VC-embedded environment was Co-construction of lexical and thematic explanations (CLTE). Micro level CLTE interactions were initiated both by tutors (115 instances) and tutees (36 instances) and were the most dominant reason that triggered the use of text chat by tutors, during the online

interactions. The other use of text chat was to overcome the frequent audio breakdowns, as represented in Table 6.22 below.

Table 6.22: Enactment of traceable affordance

| Use of text chat to enact pedagogical and linguistic affordances | Tutor-initiated occurrences | Tutee-initiated occurrences |
|--|-----------------------------|-----------------------------|
| Co-construction of lexical and thematic explanations (CLTE) (discussed in section 6.3.1 on p. 140) | 115 | 36 |
| Communication during technological breakdown (for tutors and tutees) | 32 | 27 |

Co-construction of lexical and thematic explanations (CLTE) comprised the following pedagogical and linguistic affordances:

- Orthographic and phonetic clarification of words in L2 & L1 (for tutors and tutees)
- Introduction of new vocabulary and correction of lexical errors (enacted by tutors only)
- Introduction of new expressions (enacted by tutors only)
- Repetition or reformulation of instructions/questions (enacted by tutors only)
- Grammatical correction (enacted by tutors only)

Co-construction of lexical and thematic explanations: Text chat for CLTE was usually accompanied by an oral repetition of the written word or extract. An explanation of the meaning or the form and its grammatical use was also given sometimes (e.g. “loyaux” in Adele_{TR}_S6). Furthermore, text chat was used to introduce vocabulary and lexical explanation of words. Text chat was also used to write the words that were mispronounced by tutees, (e.g. “honnête” in Adele_{TR}_S6). Additionally, lexical aid was accompanied with an explanation of the context in which it could be used. An interplay of double affordances occurs as I&CA (the image of a food truck) was enacted to consolidate T&TA, the orthographic cue (“camion restaurant” in text chat) in order to explain in L2 the concept of a food truck in Adele_{TR}’s triad in session 5. Writing the words on text chat increased the chances of a potential uptake as tutees often orally repeated the word written by tutors on text chat.

T&TA to take notes: Another synchronous traceability affordance that was suggested by tutors but not enacted by tutees was taking notes while watching a video to keep track of one’s listening comprehension. (Melissa_{TR}_S1, 18:45) Melissa_{TR} insisted that tutees take notes while watching the video for a third time in order to understand the paradox in the video. However, tutees did not take up the suggested affordance. Similarly, Samia_{TR} encouraged her tutees to take notes to keep

a trace of their ideas produced orally in session 4. This is probably because writing on text chat for tutees while speaking simultaneously entailed a cognitive overload that required ensuring orthographic accuracy on top of thinking in L2 or transcoding from L1 to L2 in their heads while speaking. Samia_{TR} reversed this affordance suggested to tutees by taking down extensive recapitulative notes herself during the interaction in sessions 4 and 5. In doing so, Samia_{TR} reformulated the tutee oral productions without interrupting them while they spoke. This offered traceable corrective feedback for tutees as recasts for post session study. It also enabled synchronous oral recapitulation of the online interaction. The note-taking by tutee also offered linguistic traces for potential instantaneous and delayed uptake in a learning environment that is otherwise extremely ephemeral. This will be looked into in more detail as part of a transformative interaction change in the next chapter.

Tutee-initiated use of text chat: Tutees' use of text chat manifests mainly in Adele_{TR}'s triad to overcome tutor-incomprehension breakdowns due to the incorrect pronunciations of Alanna_{TE}. The main problem with the Irish tutees especially Alanna_{TE} was her highly anglicised pronunciation that made comprehension difficult for the francophone tutors. Alanna_{TE} used text chat to clarify her mispronounced productions orthographically.

6.3.4 Navigation & Spatial affordances (N&SA)

The navigation between synchronous and asynchronous communication spaces for tutors and tutees will be explored here. Only the asynchronous interaction in terms of retrospective feedback will be looked into as the data sets in the ISMAEL corpus do not have the asynchronous e-mails and Facebook posts exchanged by the participants nor does it offer dynamic screen captures of tutors' and tutees' computer screens to visualize how they navigated different online spaces in the asynchronous mode.

Tutee vs. tutor enactment of N&SA: The N&SA in the asynchronous mode afforded moving around different VC spaces from the synchronous salon to the retrospective salon for corrective feedback, open and close various windows to upload text, audio and video recordings and documents for asynchronous feedback. However, these affordances were principally reserved for tutor use. Anate noted in her post-project feedback at the end of session 6 as well as in her post-interview that she had tried to access the retrospective salon to re-view the session recordings but the tool did not allow her to do so. This negative affordance (described in Chapter 7) was partially overcome as tutors exchanged extracts of videos of the online sessions to afford viewing by tutees in their *bilans*. However, this N&SA designed by the Visu conceptors remained tutor-centred as the extracts were chosen by the tutors only and the tutees could not watch the sessions at their own free will. The navigation and spatial affordances allowed tutors to navigate between the

online synchronous interaction space and the asynchronous retrospective space for offline reflection and generation of multimodal feedback. This possibility to review the online interaction recordings and generate asynchronous multimodal feedback was an important pedagogical affordance designed in Visu. The next section will explore how this was enacted by the different tutors for their respective triads.

6.4 Designed and emerging asynchronous multimodal affordances

The asynchronous feedback or *bilan* generated by the tutors was facilitated by an interplay between all three types of technological affordances designed in Visu. Hence, the N&SA allowed accessing the interactive and retrospective salons or spaces, the T&TA enabled tracing the online recordings with the timeline and markers, and the I&CA offered audio, video and textual communication channels to share feedback with the tutees at the end of each session. These multimodal *bilans* and the discursive discussions about them between the tutors and tutees during the online sessions are also explored in this section in order to investigate the relationship between linguistic and interaction performance and the preferred modalities for feedback.

6.4.1 Emerging asynchronous communication to facilitate synchronous interaction

This thesis argues that careful planning of asynchronous communication can substantially improve the quality of the synchronous interactions. The asynchronous communication can vary from informal exchange of song lists to more formal instructions to tutee to help them come prepared for the fast-paced synchronous interactions. A flipped approach is identified as a beneficial tool to help tutees participate in a more informed interaction inducing deep reflexive responses. Furthermore, a tutee-initiated flipped approach is suggested where the tutee shares a document of interest prior to the session in order to engage in more complex interactions that may benefit the tutee with his/her main module learning objectives.

Excerpt 6.4 illustrates the flipped approach instantiated by Melissa_{TR} that allows her to adapt the third session's 'choosing a relevant job offer' task to Ana_{TE}'s needs rather than imposing on her a job offer that was chosen by the tutor system. Moreover, it makes more pedagogical sense that tutees should come with their own job offers for this activity in session 3 as they needed to articulate convincing arguments defending their suitability for the job.

Excerpt 6.4: Online-interaction Melissa_{TR}_S3

Melissa_{TR} : (06:59) *donc est-ce que tu as pu regarder sur moodle les deux annonces que j'a[i po]stées*

Ana_{TE} : (07:04) *[oui] oui*

- MelissATR :** (07:07) *génial okay hum: .tsk*
 (07:12) *\est-ce qu'y a: est-ce qu'y a une annonce qui t'a intéressée d'avantage/*
- AnATE :** (07:17).*tsk hum: non no- beaucoup euh je suis*
 (07:19) *\très: spécialisée à ce que je f- à ce que*
 (07:21) *\je veux faire donc euh il n'y a pas*
 (07:23) *\[beaucoup de <((en riant)) boulots>] qui m'intéressent*
- MelissATR :** (07:27) *[ah d'accord/*
[(raclement de gorge)]
 (07:28) *\d'accord\ ben dans c`cas là c`qu'on va*
 (07:30) *\faire c'est qu'on va parler de: toi c`que tu veux faire/*
 (07:31) *\et puis tu vas m`di-*
 (07:33) *\dire euh: en quoi tu penses avoir les compétences euh: pour euh:*
- MelissATR :** (06:59) *so did you get to see on*
\moodle the two ads (job offers) I [po]sted
- AnATE :** (07:04) *[yes] yes*
- MelissATR :** (07:07) *great okay hum: .tsk*
 (07:12)*\did you: did you find one of the ads more interesting*
- AnATE :** (07:17) *.tsk hum : no no really euh I am*
 (07:19) *very specialised in wha- in what*
 (07:21) *\i want to do so euh there aren`t*
 (07:23) *\[a lot of <((laughing)) job offers>] that I find interesting*
- MelissATR :** (07:27) *[ah ok/*
[(clears throat)]
 (07:28) *\ok\well in that case we'll*
 (07:30) *\talk about: you what you want to do*
 (07:31) *\and then you'll tell m-*
 (07:33) *\me euh: what skills you think you have euh: for it euh:*

In session 3, contrary to MelissATR who shares the document beforehand thus adapting the session to AnATE's needs, EmiliETR_S3 and SamiATR_S3 share the job offer ads during the online interaction. Not only do EmiliETR and SamiATR put their tutees in a challenging spot by imposing a job offer on them and asking them to come up with arguments on the spot, this also entailed a negative effect on the quality of their expression and arguments. Moreover, this interaction was interrupted by Visu as it did not enable maximising the document, thus, completely perturbing EmiliETR and SamiATR's interactions. Moreover, AnATE herself requested MelissATR on two occasions to be informed about the sessions beforehand in order to come prepared. She reiterates this in her post-project feedback in session 6 as shown in Excerpt 6.5.

Excerpt 6.5: Online-interaction MelissATR_S6

- AnATE :** (32:51) *hum euh peut-être avoir hum la séance/ hum*
 (32 :57) *(.) envoyée à les étudiants un jour ou deux avant/*
- MelissATR :** (32 :59) *d'accord/*

- AnATE :** (33:01) *hum\ pour euh parce que c'est c'est c'est un peu*
 (33:03) *\difficile/ euh de de penser hum*
 (33 :07) *\de réfléchir à ce qu'on doit faire (.)*
 (33 :10) *\si c'est la première fois que on (.) euh*
 (33 :13) *on (aille) le la \information mais à part de ça/*
 (33 :17) *°je crois que tout bien°*
- AnATE :** (32:51) *hum euh maybe have the session/ hum*
 (32 :57) *(.) sent to the students a day or two before/*
- MelissATR :** (32 :59) *ok/*
- AnATE :** (33:01) *hum\ for euh because it's it's it's a bit*
 (33:03) *\difficult/ euh to think hum*
 (33 :07) *\to reflect on what we have to do (.) if*
 (33 :10) *\it's the first time that we (.) euh*
 (33 :13) *we get the information but apart from that/*
 (33 :17) *°i think that all good°*

A flipped approach is a precious aid for synchronous interactions. However, it becomes beneficial for the less proficient speaker only with the help of the tutor's online scaffolding. For example, MelissATR shared the video documents with her tutees prior to sessions 1 and 2 and AlejandrATE asserted during her online interaction with MelissATR that despite having watched the video a number of times, she still did not understand its contents. After watching the video three times during the session (even though AlejandrATE had already watched it at home) and spending roughly seven minutes to understand it online, it was only the interaction between the tutor and AnATE that helped MelissATR understand the video in session 1.

On the other hand, documents shared by AlejandrATE with her tutor before the mock interview in session 6 is an example of a 'tutee-initiated flipped approach'. The individualised attention in such settings made this action possibility affordable. The mock interview that ensued between MelissATR and AlejandrATE was more or less controlled by both the tutee and the tutor. It was not rid of interlanguage hesitations and in fact the purpose of the flipped approach is not to come prepared with memorised answers. The interaction revealed, however, a certain confidence in AlejandrATE's responses who in most situations of interaction breakdowns would struggle and give up in frustration. FionATE in her feedback asserted that she would have appreciated more mock interviews to train. Hence, some learners, contrary to what tutors think, appreciated a repetitive character for the interaction tasks. Such repetitive tasks would, in fact, help low proficiency learners gain more confidence in oral interaction rather than setting up complex tasks for them that may lead to interaction and confidence breakdown.

6.4.2 Tutor regulation of asynchronous feedback

The provision for asynchronous interaction or communication was designed in Visu to allow delayed multimodal feedback via the retrospective salon. The markers helped trace errors to facilitate tutors with post-session reviewing of their online interactions and prepare their multimodal feedback in a time efficient manner without having to go through the entire recording. The *bilan* or asynchronous multimodal feedback were prepared based on these markers. However, Victor_{TR} noted that he did not find the markers beneficial as he watched the recording of the entire session to prepare feedback for his tutee. This designed affordance was however tutor-centred as tutees did not have the opportunity to watch the sessions in the retrospective salon as noted by Anate. Anate notes in session 6 in her feedback to Melissa_{TR} that she had tried and failed to do so. She would have liked to have access to this asynchronous space in order to engage in auto-evaluation and to re-engage with the tutor/expert's locution in an asynchronous mode.

The headings generally used by tutors to categorise the *bilans* were 'positive feedback', 'semantic structure', 'idiomatic expressions', 'vocabulary' and 'pronunciation'. This seems to suggest an emphasis on the micro level focus on form and meaning in L2 except 'positive feedback' that was not limited to micro level interaction only. However, an analysis of the *bilans* of the four triads, in this study's corpus, revealed four more qualitative aspects (points 5, 6, 7 and 8 in bold in the list below) that added to the interactional value that the asynchronous feedback/*bilan* afforded.

1. Giving positive feedback,
2. Addressing semantic errors,
3. Reiterating the vocabulary introduced or needed during the online interactions,
4. Addressing pronunciation problems,
- 5. Engaging in social communication,**
- 6. Meta-interactional instructions (i.e. how to interact) & encouraging peer collaboration,**
- 7. Reiteration of intercultural themes that emerged during the interactions,**
- 8. Linking the online interactions with the macro module objectives.**

Table 6.23 gives a cumulative picture of the different types of asynchronous feedback and summarises the linguistic and pedagogical affordances that were prioritised by different tutors. Positive feedback scores the highest in almost all the tutors' cases. Adele_{TR}'s feedback shows the desire to link the feedback to the main module objectives (16.13%). Focus on meta-interaction comes in next along with pronunciation and social talk (12.90%). Melissa_{TR} scores the highest in terms of meta-interaction following positive feedback. This is because she comes up with strategies to deal with the difficulty in managing two tutees with a huge proficiency gap separating

them. Vocabulary and pronunciation are given equal importance by her. Interculturality is very low in the asynchronous feedback for three tutors except Adele_{TR}.

Table 6.23: *Bilan* feedback types and modes enacted by all 4 tutors

| Categories for feedback (FB) in the <i>bilan</i> | Adele _{TR} (%) | Emilie _{TR} (%) | Melissa _{TR} (%) | Samia _{TR} (%) |
|--|-------------------------|--------------------------|---------------------------|-------------------------|
| Positive feedback | 19.35 | 30.77 | 22.5 | 30.43 |
| Semantic/Expressions | 9.68 | 30.77 | 20 | 34.78 |
| Pronunciation | 12.90 | 11.54 | 12.5 | 21.74 |
| Meta-interaction | 12.90 | 7.69 | 15 | 4.35 |
| Main module objectives | 16.13 | 11.54 | 7.5 | 4.35 |
| Vocabulary | 9.68 | 0 | 22.5 | 4.35 |
| Social/small talk | 12.90 | 7.69 | 0 | 0 |
| Interculturality | 6.45 | 0 | 0 | 0 |
| Total | 100 | 100 | 100 | 100 |

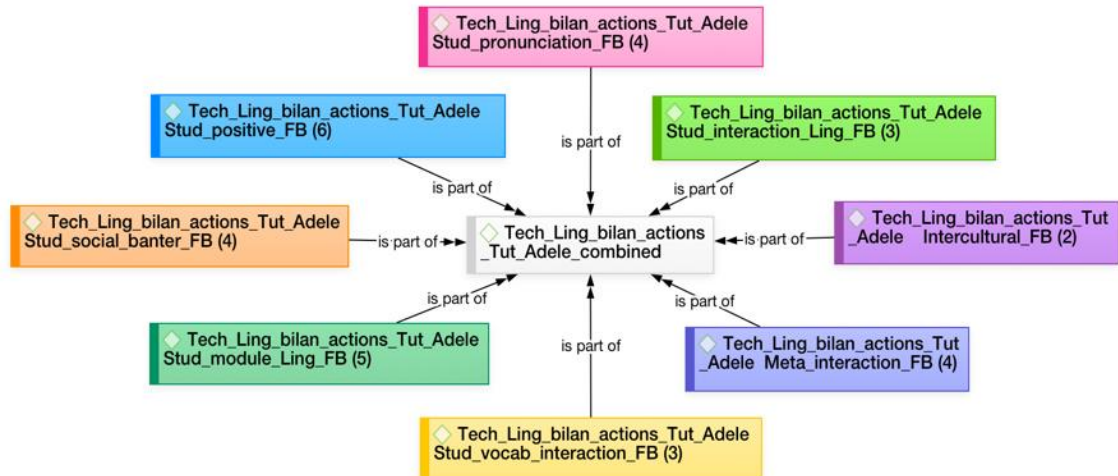
6.4.3 Individual triads' enactment of asynchronous feedback

The network views for different tutors' asynchronous feedback generated with Atlas.ti show that tutors touched upon the categories in Table 6.23 to different degrees in their *bilan*. The number of occurrences of each feedback type is represented within brackets in the colour-coded boxes representing each of the above categories.

Adele_{TR}'s case: Adele_{TR} is the only tutor who touched upon all the eight aforementioned types of feedback in her *bilan*. This is illustrated in the network mapping in Figure 6.12. Unlike other tutors who individualised the *bilan* for both tutees, Adele_{TR} made a common *bilan* for both her tutees. Although Catriona_{TE} showed higher levels of accuracy in language use, her less accurate peer Alanna_{TE} showed the ability to rapidly come up with different ideas and negotiate with her tutor Adele_{TR} on the spot, thus enriching the online interactions greatly for the triad. As reflected in her post-interview, Catriona_{TE} did not mind the lack of individual feedback stressing that this, in fact, helped her notice the comments Adele_{TR} addressed to her peer Alanna_{TE} too. By sharing a single feedback file with both tutees, Adele_{TR} extended the peer interaction that she often encouraged during the synchronous interactions in the asynchronous space (*bilan*) too. For example, in her *bilan*, Adele_{TR} mentioned that Alanna_{TE} could explain a word to Catriona_{TE} in

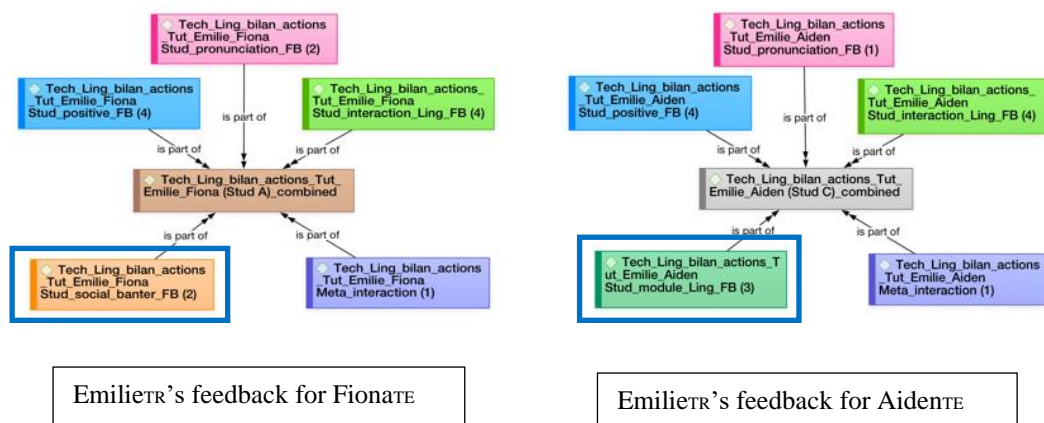
the next session, etc. Moreover, because of the perennial sound problems that impaired Catriona_{TE}'s participation, Adele_{TR} did not have access to much of her productions and therefore could not offer significant corrective feedback to her alone. Sharing Alannah_{TE}'s mistakes with Catriona_{TE} helped the latter notice facts and errors that were useful for her own learning, as specified in her post-interview.

Figure 6.12: Network view of N&SA affording multimodal asynchronous feedback for Adele_{TR}



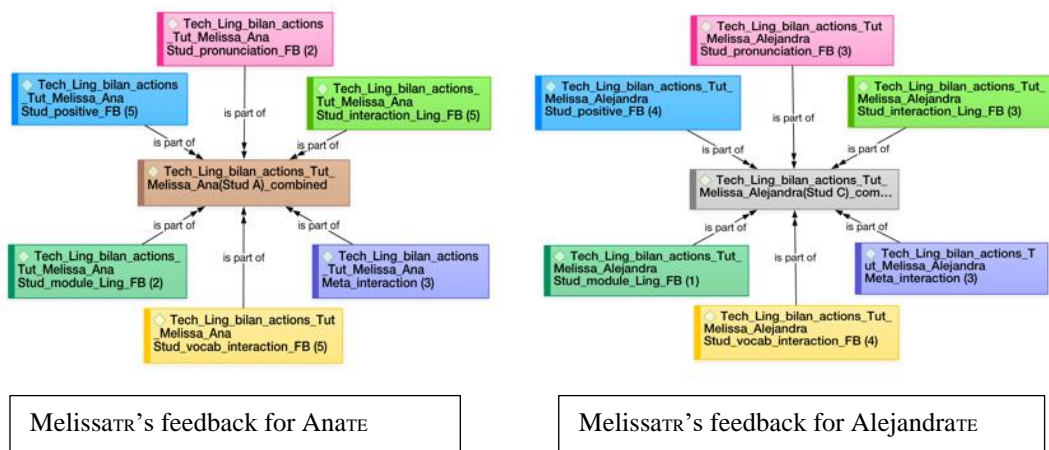
Emilie_{TR}'s case: Emilie_{TR} offered feedback to her tutees separately. The feedback for each of Emilie_{TR}'s tutees represented in Figure 6.13 highlights the absence of the intercultural element in her *bilan*. Moreover, she showed the tendency to engage in light-hearted banter with Fiona_{TE} but seemed more reserved with Aiden_{TE} in her offline feedback. Emilie_{TR} tries to individualise her feedback by stressing on vocabulary, such as “*parcours professionnel*” that Fiona_{TE} could have benefitted from too.

Figure 6.13: Network view of N&SA affording multimodal asynchronous feedback for Emilie_{TR}'s dyad



MelissATR's case: In MelissATR's case, represented in Figure 6.14, AnATE (the more proficient speaker in the dyad) lamented the lack of sufficient corrective feedback and input from the tutor in the *bilan* in her post-interview. AnATE's needs and expectations were much higher than her peer AlejandraTE who struggled significantly to keep up with the interactional pace due to her low oral proficiency. Moreover, AnATE initiated intercultural questions directly derived from the main module. MelissATR did not always have the answers on the spot to AnATE's specific intercultural questions on the CV and job interview. These questions could have been addressed in greater detail in the *bilan* after researching the issues but this was not done. Moreover, in her post-interview, AnATE highlighted her disappointment with the *bilan* as it did not provide sufficient critical feedback. With regard to vocabulary, AnATE noted that MelissATR had repeated the lexical help with transparent words that she had already introduced during the online sessions. This was interesting but did not provide the lexical complexity that AnATE was looking for. AnATE noted that the paucity of corrective feedback and the relative abundance of positive feedback might have been the effect of her peer's low proficiency level and her tutor's comparative evaluation of both tutees. AnATE (on left) received a little bit more feedback than AlejandraTE (right) but the bilans also revealed that MelissATR showed the tendency to recycle the same feedback for both her tutees.

Figure 6.14: Network view of N&SA affording multimodal asynchronous feedback for MelissATR's dyad

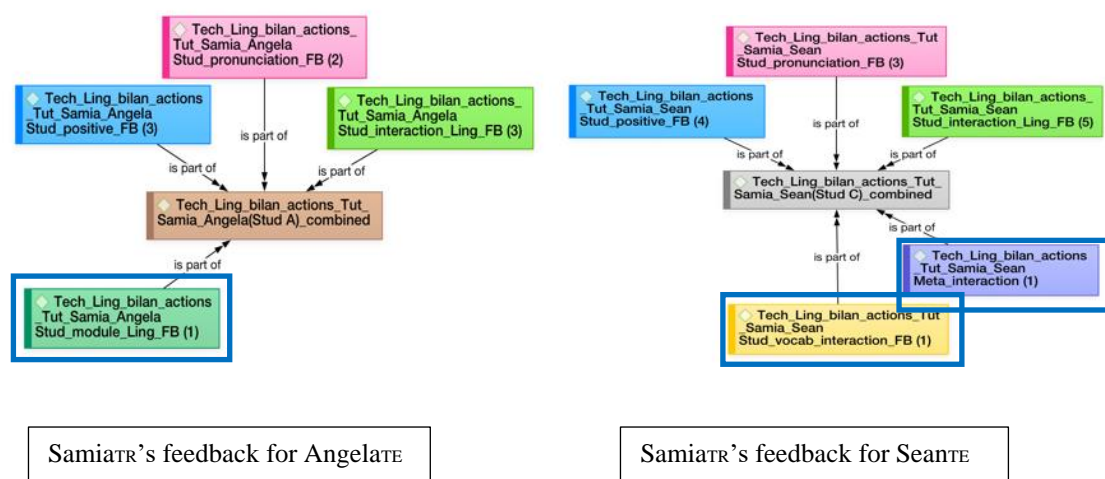


SamiaTR's case: Samia's *bilan* represented in Figure 6.15 shows the lack of intercultural feedback for both tutees and the low level of reference to the main module related feedback (only 1 instance for AngelATE) are noted as drawbacks in SamiaTR's case too. However, SamiaTR compensated for this by making a significant number of allusions to the main module-related themes and

vocabulary in the online interactions. Samia_{TR} stressed ‘vocabulary’ and ‘meta-interaction’ (highlighted) for the less proficient Sean_{TE}. These two components were, however, completely omitted from Angela_{TE}’s (the more proficient speaker) feedback. Although, Angela_{TE} did not express any problem with these aspects in her post-interview, her *bilans* reiterate Ana_{TE}’s point of contention that as a proficient speaker, she mainly received positive feedback although she would have preferred a higher level of complexity and criticality in her feedback for her linguistic development. Nevertheless, Angela_{TE} like Ana_{TE}, expressed her disappointment (in her post-interview) regarding the inability to access the rich linguistic recasts that Samia_{TR} had generated online by continuously recapping and summarising in writing the tutees’ oral productions via text chat. This rich affordance was lost as Visu did not allow retrospective retrieval of the text chat interaction for tutees. In her post-interview, Angela_{TE} did state that she would prepare notes from the tutor’s *bilan* to go over them regularly suggesting an asynchronous acquisitional effort on the student’s part.

Angela_{TE} (the most proficient speaker in the whole corpus) stressed in her post-interview, unlike Catriona_{TE} (Adele_{TR}’s tutee), that the corrective feedback is meant to be personal and that she would not be comfortable sharing this asynchronous space with her peer. This may be because of the wide gap in proficiency between the two tutees that was mostly felt as a disadvantage by the more proficient tutee in the beginning.

Figure 6.15: Network view of N&SA affording multimodal asynchronous feedback for Samia_{TR}’s dyad



The tutors tried to create *bilans* tailored to address the individual tutees’ productions. The feedback shared with the tutee dyads was individualised although the tendency to recycle the same feedback for both tutees does surface in Melissa_{TR}’s case for her sixth and final *bilan*. Tutors

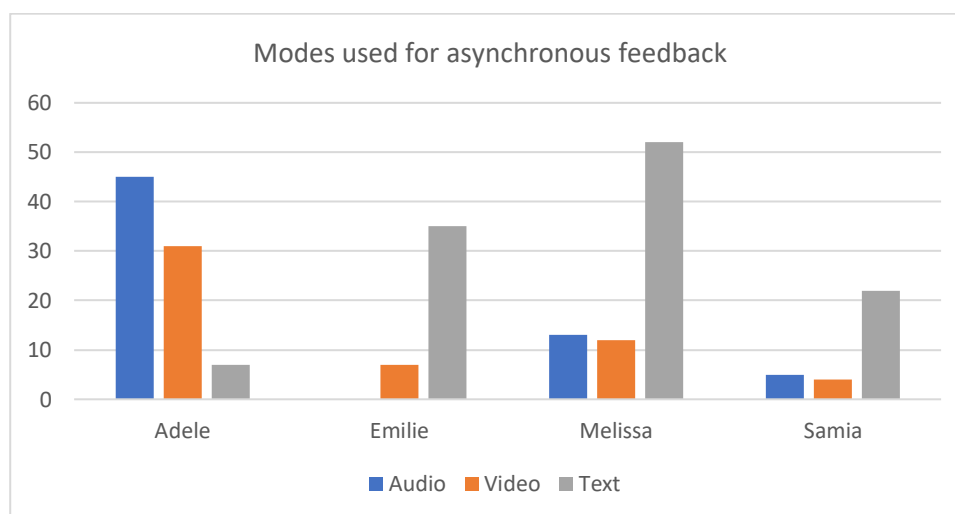
could have reiterated thematic vocabulary related to the main module in their *bilan* in order to aid tutees with noticing and retention of the relevant vocabulary. However, this requires a good knowledge of the tutee main module content which was not the case (discussed in Chapter 7).

6.4.4 Different modes used for asynchronous feedback

In the asynchronous feedback, audio and video modes were often used to supplement a textual explanation. Hence, all audio and video modes were accompanied by a short text in all cases except in some *bilans* that did not include the textual explanation and hence resulted in confusion for tutees regarding the purpose of the video extract of the interaction. Hence, it is important to supplement audio or video clips shared in asynchronous communication with written or oral explanation.

Figure 6.16 shows that all tutors except Adele_{TR} made dominant use of the written/text mode to communicate their asynchronous feedback. In sharp contrast, Adele_{TR}'s use of the text only mode was extremely limited although all her audio and video extracts were labelled with written comments and instructions. Melissa_{TR}'s use of the text mode is the highest although she did use the audio and video modes too. Except Emilie_{TR}, all other tutors use all three modes in their *bilan*. Emilie_{TR}'s use of the written mode is the second highest and she does not use the audio mode at all. In any case, the tutees asserted in their post-interviews that the audio mode was found to be extremely beneficial as it afforded imitating the tutors' pronunciation of transparent and other difficult words asynchronously (so without the technostress generated by the synchronous channel).

Figure 6.16: The use of audio, video, and text modes by tutors for *bilan*



The audio mode was mainly used to address pronunciation and vocabulary errors. Positive feedback and meta-instructions were mainly communicated in the written mode. Social/small talk was conveyed in writing too via smileys and capitals to express enthusiasm. Adele_{TR} also shared video extracts of funny episodes from the online sessions. Adele_{TR} also used the written mode to stress the jovial relation she shared with her tutees, e.g. “hihihi” and the playful nature of their interactions “*préparez-vous on va encore jouer mardi*”, etc. Sharing video extracts of the online interaction allowed tutees to review their online performance that they normally did not have access to as revealed by Anate and Angela_{TE} who had tried in vain to access the online sessions retrospectively.

Typical errors: Typical errors made by tutees were the confusion between “*écouter*” and “*entendre*”, “*savoir*” and “*connaître*”, “*regarder*” and “*voir*”. Also, the lack of vocabulary to describe the various contextual uses of the verb “*faire*” was observed. The noun and adjective agreement and the subject and verb agreement in terms of pronunciation in French also ranked high for the more proficient tutees. Similarly, the erroneous use of prepositions was common too and quite pronounced in the more proficient tutees as well. For example, the use of “*dans le weekend*” and “*dans les irlandais*” instead of the correct “*pendant le weekend*” and “*chez les irlandais*” respectively. Similarly, the use of « *avoir besoin de* » in “*l’argent que j’aurai besoin*” instead of “*l’argent dont j’aurai besoin*”, etc. were some of the common errors.

The stress on vocabulary both in the online feedback and in the *bilan* was significant. However, there was no concerted or structured attempt by tutors to focus on vocabulary that was more relevant to the tutees’ needs based on their main module curriculum and objectives except in session 6 for the mock interview. Moreover, tutors’ utterances in terms of lexical and semantic difficulty were also sometimes not adapted to their tutees’ levels. Emili_{TR}, for example, used very long and complicated structures as instructions or explanations in the online sessions (evidenced by Figure 6.8, p. 152). Emili_{TR}’s lengthy oral productions and reformulations of designed questions may not have been useful as her tutees looked for the written questions and instructions onscreen to supplement their comprehension. Having access to the recordings of the online interactions could have allowed the tutees to make a list of words and expressions they did not understand during the interaction. This would be a strenuous exercise for a few tutees, nevertheless, motivated tutees could benefit from such a tool affordance.

6.5 Discussion

It was observed that tutor enactment of I&CA was greater than tutee enactment of I&CA as the sharing of documents was designed to be unidirectional and, thus, asymmetrical in the system.

Tutor enactment of T&TA was also higher than tutee use of T&TA as the traceable (text chat and markers) and temporal (timeline) features of the tool were mainly used by tutors for online feedback and interaction regulation. However, the different N&SA showed more frequent tutee enactment as compared to tutors. Some N&SA, such as maximizing and minimizing windows were not designed in the tool, thus, leading to abandoning a task in the middle by tutors. Navigating tabs were used more often by tutees as they looked up vocabulary online at the same time as they spoke. Tutees did not always solicit tutors' aid in terms of lexical help.

A N&SA designed in the VC tool is the asynchronous space (retrospective salon) that complemented the principal synchronous activity space. It offered an offline space that allowed tutors to reflect on their interactions, their tutees' productions and prepare individualised multimodal asynchronous feedback. The video recordings (facilitated by I&CA) could be traced (facilitated by T&TA) in this asynchronous space (facilitated by N&SA). It was a space for auto-evaluation and reflection on their own practice for tutors. It was also a space where tutors reflected on tutee productions and suggested multimodal corrective feedback on different aspects of their linguistic and interactional production. The tutee post-interviews revealed that more proficient tutees sought more critical feedback rather than positive feedback. Motivated tutees also sought access to the online recordings in order to go over the experts' productions in the more relaxed offline mode to facilitate their learning. This was also reported in the tutees' post-interviews.

As already specified in section 2.3.1 (p. 33), the most frequently used task types in videoconferencing are information exchange tasks, comparison and analysis tasks, collaborative tasks, co-construction tasks, language-focused tasks and different combinations or sequences of these (Akiyama and Cunningham, 2018). Additionally, intercultural exploration and sociopragmatics is a 'comparison and analysis' type of task that was observed to be the most commonly implemented in asymmetrical collaborations (Develotte, Guichon and Kern, 2008; Jauregi & Bañados, 2008). 'Intercultural exploration' encompasses 'information exchange' and 'comparison and analysis' type tasks in the context of this study. Moreover, the tasks proposed in this study comprised all the different task types that populate the literature on VC collaborations. The first three sessions revolved around 'intercultural exploration and sociopragmatics' while focusing on the thematic choice of work rights and conditions, tutees' personal work experience, and their projections for future work experience in France. This was in keeping with the tutees' professional and personal competences developed as Business students and their imminent study abroad and work experience programme in France. Finally, in sessions 4 and 5, tutors proposed collaborative co-construction tasks. These sessions did not aim to produce a material artefact like a web page, for example, but rather aimed to co-construct conceptual ideas of Business deals and marketing projects. This entailed a change in tutee roles from L2 learners to disciplinary

specialists. Consequently, the tutor role also changed from L2 expert to scaffolder of conceptual ideas that they did not master. This implied a shift towards a more symmetrical exchange where tutees were expected to come up with questions, a linguistic affordance which was initially a tutor prerogative.

The traditional historical understanding of the L2 teacher as provider of linguistic and intercultural input was transformed into an individualised tutoring setting where gradually the tutee was attributed the role of the expert in his/her own domain. The tutor as scaffolder facilitated the tutees' conceptual expertise and expression of creative ideas in L2. As the sessions progressed, the traditional teacher-tutee question-answer format changed into more complex collaborative tasks. However, this change was less adapted for tutees with low proficiency. Finally, the tutee system (with the lecturer's input for session designs) and the tutees themselves were required to participate in co-teaching by affording tutors constant feedback on the sessions and their asynchronous feedback.

Unlike the literature review in section 2.3.4 (p. 40) that suggested that VC-mediated pedagogy is mainly tutor-regulated (Dejean-Thircuir, Guichon and Nicolaev, 2010), the emerging affordances reviewed in this chapter supported a shift towards increased tutee initiatives. However, this learner-centred pedagogy cannot be attained effortlessly as it requires higher tutee agency. Moreover, it was noted that the technological affordances designed in Visu afforded linguistic and pedagogical affordances that were predominantly tutor-centred. Hence, the VC tool's design did not afford this symmetry in practice as explicated below.

Emerging tutee feedback (T&TA): The flow of asynchronous feedback was conceived by the tool itself as being unidirectional as per the design of the tool, that is, moving from tutors to tutees with no provision of feedback coming in from tutees in the asynchronous mode. However, as the sessions unfolded, it was observed that tutors overcome this missing affordance in the tool by actively seeking feedback from tutees during the online interactions.

Flipped approach (I&CA): A few tutors (MelissATR in sessions 1 and 3) put in place a flipped approach to share videos before the online session in order to help tutees come prepared. The Visu tool did not afford a pre-session sharing of documents, so MelissATR used an environment artefact (Moodle) to introduce this affordance. This was an emerging affordance of the environment. Also, a tutee-initiated flipped approach was proposed in MelissATR and AdeleTR's case in session 6 that facilitated sharing of documents related to the session's theme by the tutees. This contributed to less cognitive pressure and more focus on content rather than focus on form in the synchronous channel (as asserted by AdeleTR's tutees in session 2). A tutee-initiated flipped

approach would also facilitate an alignment between the main module and the VC tasks for such distant learning settings. Moreover, the asynchronous space could be adapted in future instantiations to include pre-session exchange of material between tutors and tutees.

Asynchronous and synchronous spaces for learning (N&SA): The participants' enactments of the designed technological, linguistic and pedagogical affordances in both synchronous and asynchronous spaces of the learning system allowed to observe the emergence of new linguistic and pedagogical action possibilities. The asynchronous generation of multimodal feedback was a valuable affordance enabled by Visu. At the same time, this raises the crucial question of how the asynchronous and synchronous spaces complement each other for the principal activity. Time and again, tutees and tutors require asynchronous spaces to memorate and reflect on the online exchanges for learning and development. Therefore, asynchronous spaces are crucial components in the design of synchronous learning systems. This aspect seems to have been neglected in the design of the VC tool as the asynchronous salon was only accessible by tutors and not by tutees.

6.6 Summary & Conclusion

This chapter proposed to zoom in into the micro level linguistic actions and sub-actions and technological operations that were designed in the pre-project and pre-session phases and those that emerged in the course of the principal activity, as the participants enacted the designed affordances in the online interactions. A taxonomy of designed technological affordances (i.e. I&CA, T&TA and N&SA) for asymmetrical VC collaborations for L2 learning and teaching was, thus, proposed. In this researcher's knowledge, no study to date has proposed such a taxonomy yet. Similarly, the designed linguistic and pedagogical affordances of the VC project were identified by analysing the designed session plans. These linguistic and pedagogical affordances attempted to fulfil the dual aims of L2 oral interaction development for tutees and professional development of online pedagogical interaction competence for tutors. Furthermore, the design of the learning ecosystem was such that these designed linguistic and pedagogical affordances were themselves emergent as they followed an iterative process of weekly online instantiation and subsequent critical evaluation and transformation, both at the micro moment-to-moment interaction level and the meso session design level. The actual enactment of the designed technological and linguistic affordances gave rise to emerging affordances that could be positive or negative, perceived or unperceived, depending on the actors.

However, the linguistic and pedagogical affordances designed in the weekly sessions evolved and in turn evoked transformative changes in the session designs and their online instantiations.

This study does not suggest an outright generalisation of the proposed taxonomy of technological affordances for asymmetrical VC. However, the taxonomy could benefit future research interested in conducting a comparative study of other VC platforms for asymmetrical L2 learning and teaching and validate or contend and/or add onto this study's findings.

Studies use the term affordances, but this researcher has not yet come across a study that has given a formal basis to the notion of affordances in the context of asymmetrical videoconferencing. The review of the literature in Chapter 2 indicates that the affordances of this specific learning environment have not yet been clearly identified and defined from a systemic perspective. Individual micro level interactions and the technological affordances supporting or facilitating them have been looked into in the literature. However, an overarching affordance basis for such learning ecologies is missing. This thesis attempts to address these gaps by providing a basis that can be built upon. As such I&CA, T&TA and N&SA can be extended to the design of other asymmetrical CALL-based VC learning environments to help teachers, curriculum designers and VC platform developers and engineers to build their technological and pedagogical designs based on this taxonomy. Hence, VISU's designed technological affordances may be used as a basis to build upon in other contexts. The theoretical and methodological basis proposed in this study may be extended to other VC embedded contexts and built upon too.

The reasons that motivated the emergence of new action possibilities at the moment-to-moment level interactions can be understood by analysing the macro context. Hence, this chapter only partially answers the research questions. It is also required to zoom out to the interaction between the tutor-tutee activity systems and its component parts in order to identify the tensions between the systems as negative affordances and how they manifest within each triadic interaction. Finally, how these tensions and interaction breakdowns are circumvented will reveal other types of emerging affordances in the following chapter.

Chapter 7 Manifestations of contradictions and interaction breakdown and their resolution

The previous chapter zoomed in to the micro moment-to-moment interaction level and identified the enactments of various action potentials in the VC learning environment as mediated by the designed technological and pedagogical tools. These enactments of the designed affordances allowed new action possibilities to emerge, that are referred to as emerging affordances. However, it was noted that focusing on micro level actions only reveals a partial picture of the system's dynamics. An ecological analysis involves zooming out as well to the macro level interaction between the distant institutions in order to identify what facilitates and constrains the collaboration and how they are related to the micro interaction level.

Even though technology bridges geographical distances and affords enriching opportunities of communication and exchange in distant collaborative projects, both 'distance' and 'technology' present complexities and challenges. The notion of emerging affordances is extended, in this chapter, from the meso level linguistic actions and technological operations to the macro level inter-systemic activity design and its constraints that in turn influence the meso level session designs. New socio-pedagogical action possibilities are conceived to circumvent the constraints of the learning environment. This leads to a renewed understanding of the action possibilities or affordances in asymmetrical VC for L2 learning and teaching. CHAT's analytical tools serve as entry points for the identification and analysis of different types of discursive manifestations of contradictions (Engeström & Sannino, 2011). Moment-to-moment (micro level) interaction breakdowns and disruptions are analysed against the backdrop of over-arching pedagogical and technological constraints and mismatches at the project design level, session and interaction design levels.

7.1 VC project level mismatches

Distance implies not only geographical distance but also temporal, institutional, cultural and psychological ones (Bertin & Narcy-Combes, 2012). Pedagogical mediation in such learning environments occurs through the filters of distance, technology, cross-institutional and cross-cultural constraints. An analysis of the tutor debriefings, reflective reports and post-project interviews of the tutors, tutees and their respective project lecturers reveal the systemic constraints and tensions that are perceived in the VC-embedded pedagogy. This thesis argues that these tensions and constraints are triggered due to technology and distance mediation as complex inherent characteristics of this learning environment and that demarcate it fundamentally from a

face-to-face classroom setting. Furthermore, the asymmetrical nature of the inter-institutional collaborations give rise to inter-systemic mismatches with regard to norms, rules and division of labour that govern such asymmetrical VC projects. These mismatches in turn influence the session and interaction designs giving rise to dilemmas for tutors as they try to regulate the online interactions and breakdowns. Perceived systemic mismatches, dilemmas and constraints are voiced in the debriefings conducted after every session. Identifying these constraints and tensions as systemic negative affordances in this thesis, will allow to anticipate their occurrence in future project designs and even propose new affordances to circumvent such manifestations of tensions.

Drawing on CHAT's notion of activity systems and inter-systemic tensions, a total of 263 instances of problems or challenges related to the online interactions were found in the post-session debriefings. Fifty-two instances of these challenges reappeared in the tutees' and their lecturer's post-project interviews and Voicethread presentations as well. These discursive manifestations of tensions were put into three main categories as represented in Table 7.1: project design level mismatches, session/interaction design level dilemma, and tool design level constraints.

Table 7.1: Types of systemic tensions perceived by tutors, tutees and their lecturers

| Distance, technology and asymmetrical system-related manifestations of constraints and tensions | Inter and intra-systemic tensions perceived by VC project participants |
|--|---|
| Project design level mismatches between the systems | <ul style="list-style-type: none"> - Lack of clarity regarding tutee learning system; - Aligning VC sessions to main module objects (FLE vs. FOS; institutional norms & rules); - One session design for different tutee-tutor groups (division of labour). |
| Session/Interaction design level dilemma | <ul style="list-style-type: none"> - Triadic interaction difficult with question-answer format (subject-tools mismatch); - Online interaction time/speech/tool regulation by tutors; - Tutee incomprehension & inability to complexify production and tutor incomprehension. |
| Tool design level constraints | <ul style="list-style-type: none"> - Lack of tutee agency afforded by VC platform; - Lack of emphasis on asynchronous tools to facilitate online interaction; - Technology breakdowns leading to technostress. |

The project design level mismatches arose primarily due to the 'partially' shared objects of the two distant interacting systems and a lack of clarity regarding this right from the start of the project. Moreover, a mismatch in the two activity systems' institutional norms and rules also gave

way to divergent conceptions of the VC sessions. The division of labour also posed problems in some cases. These manifestations of systemic contradictions or mismatches are explicated below.

7.1.1 Lack of clarity regarding the tutee learning system

As mentioned in the introduction of this section, distance in such technology-mediated learning environments represents a complex notion spanning spatial, temporal, institutional, cultural and psychological distances. This notion of distance transpires in the lack of clarity for the tutor system regarding the tutee system in the ISMAEL project. This is perceived as a real “constraint” by the tutor system and is voiced by the Lyon-lecturer in the following excerpt Excerpt 7.1, as the tutors expressed surprise on their lack of knowledge regarding their tutees’ profiles, their different nationalities and levels of competence, in their very first debriefing.

Excerpt 7.1: Debriefing Post-session2

Lyon-lecturer: *On a besoin de se poser des questions sur qui, qui sont ces étudiants ? [...] c’est intéressant parce que c’est vrai qu’on sait pas bien ce qui s’y passe là-bas. [...] vous êtes par- partie prenante dans ce projet et c’est intéressant de voir aussi quelles sont les contraintes quand on veut mener de de tels projets.*

Lyon-lecturer: We need to ask ourselves who, who these tutees are [...] it is interesting because we do not really know what’s happening there. [...] you are part of this project and it is also interesting to see what the constraints are in such projects.

The Lyon-lecturer refers to this perception of “*contraintes*” or “constraints” imposed by distance that accentuates the unknown “*c’est vrai qu’on sait pas bien ce qui s’y passe là-bas*”. This is felt despite project level preparations prior to the videoconference sessions taken up by both the tutor and tutee lecturers to understand each other’s needs and constraints. Furthermore, a Lyon researcher, who had acted as tutor in a previous collaboration with another institution and who was part of the ISMAEL research project, emphasised this lack of clarity regarding the tutees’ main module learning objectives and outcomes in her post project interview. In Excerpt 7.2 she talks about the doubts and questions that arose in the tutors’ (referred to as students here) minds regarding the tutee system’s needs and expectations.

Excerpt 7.2: Post-interview Lyon-researcher

Lyon-researcher: *pour les étudiants ça été beaucoup plus formateur cette année parce qu'ils se sont vraiment posé des questions du coup par rapport à leur positionnement en tant que tuteur dans la construction des tâches [...] c'était quelque chose que même [r_3] ne voyait pas trop bien par rapport au Business School [...] Beaucoup de remises en question mais qui ont découlé sur finalement des beaucoup plus de critères de réussite.*

Lyon-researcher: for the students the learning experience was more interesting this year because they really enquired about their role as tutor in the construction of tasks [...] this was something that even the Lyon-lecturer was not clear about with regard to a Business School [...] A lot of questions surfaced but that finally led to a more successful experience.

As the Lyon researcher notes, this tension that arose due to a lack of clarity regarding the Business School or the tutee activity system pushed the tutors further in terms of their conception of the session designs and even forced them to question their role as online tutors, thus, making the whole learning process more successful for tutors.

Such inter-institutional VC partnerships are typically embedded within a main module. The VC activity in the ISMAEL project was complemented by neighbouring activities for both the tutor and tutee learning systems as shown in sections 4.2.2 (p. 74) and 4.2.3 (p. 78). For each activity system, the neighbouring activities along with the VC activity together formed the system's learning curriculum and objectives. Hence, the VC activity invariably experiences a level of systemic tension that flow from the institutional norms and rules and the community. This is reflected in the Dublin-lecturer's perception in Excerpt 7.3.

Excerpt 7.3: Post-interview Dublin-lecturer

Dublin-lecturer: *le principe du français en première ligne c'est que les tâches composées par les étudiants sont validées par l'enseignant du groupe [...] donc pour moi c'est quand même important que ça s'inscrive bien dans l'objectif de mon cours parce que sinon moi je ne peux pas assurer la réalisation des objectifs d'apprentissage de mon module ce qui est très problématique.*

Dublin-lecturer: In *français en première ligne* the tasks created by the students are validated by the group's teacher [...] so for me it is important that these tasks are aligned with my session objectives as otherwise I cannot achieve my module's learning objectives and that is highly problematic.

The Dublin-lecturer liaised with the Lyon tutors every week to ensure that their proposed session plans broadly corresponded with the tutee main module objectives. The Lyon activity system's schedule (in Chapter 4) allowed these session plan proposals to reach the Dublin-lecturer in Dublin via email one week before their actual online instantiations. This left the lecturers and tutors with very little time to send emails back and forth to exchange feedback, incorporate the suggestions and assimilate the modifications. This pressure was felt even more strongly by the Dublin-lecturer as Irish institutional norms and rules stress aligning the stipulated learning outcomes in line with semester-end assessments for each module. The lecturer could not ignore or change the already published learning outcomes and assessments for the module to accommodate the VC sessions from a professional and ethical perspective. This inter-systemic

mismatch between the tutee system's norms and rules and the VC tool (pedagogical session plans) proposed by tutors was itself an outcome of the tutor system's neighbouring session design activity. Consequently, the Dublin-lecturer perceived an initial lack of alignment between the session designs proposed by the tutors and the main module objectives within which the VC project was embedded.

7.1.2 Aligning VC sessions to tutee main module

The Dublin-lecturer perceived that the videoconferencing activity was being 'added-on' and had difficulty in 'nesting' itself within the tutees' learning ecosystem. This represented a mismatch between the VC sessions and the tutee main module objectives within which it was embedded. The tutee system functioned under immense time pressure to meet the module learning objectives within which the VC activity was embedded. The two hours per week for tutees were reduced to one hour per week following the introduction of the VC sessions as the latter replaced one hour of the module time. The Dublin-lecturer's remark in Excerpt 7.4 reiterates the mismatch between the tutor-designed session plans and the tutee main module objectives.

Excerpt 7.4: Post-interview Dublin-lecturer

Dublin-lecturer: *Mais je pense qu'il faudrait euh mieux aligner la formation des tuteurs à celle de mes étudiants [...] revoir l'histoire de la conception des tâches parce que ça c'était un peu stressant [...] ce qui me laissait très peu de temps pour bien réfléchir et souvent quelques fois je voyais arriver des trucs (je disais) ohlala.*

Dublin-lecturer: But I think that they need to align the tutor training to meet my students' needs [...] the conception of tasks need to be reviewed because that was a bit stressful [...] as it left me with very little time to think properly and often I'd get stuff (I'd go) ohlala.

The Dublin-lecturer communicated this mismatch to the tutors in person on a research visit to Lyon, right after the first two sessions. She expected the session plans to be aligned to the Dublin module learning objectives and assessments in an individualised aid form wherein tutors could help tutees achieve the main module learning objectives on work experience and job applications, based on *FOS (Français à Objectif Spécifique)*. This was not fully compatible with *FLE (Français Langue Etrangère: with emphasis on intercultural themes to activate the five L2 communicative competences)*, the pedagogy model on which the tutor main module was based. However, the highly specific content of the Dublin module made it extremely challenging for tutors to adapt themselves to the tutee curriculum.

Excerpt 7.5: Debriefing post-session3

Mathilde_{TR}: *Enfin, le truc c'est que des fois, on trouve le...l'activité bien faite. Enfin, nous, ça nous convient bien mais c'est pas forcément les attentes de [Dublin-lecturer] ou de vos attentes à vous. [...] Et on se dit... « Moi, ça me va », « Ben, moi aussi » mais, en fait, voilà, là, il y a un truc qui va pas alors que, nous, ça nous convenait donc on voit pas forcément le truc à changer.*

Adèle_{TR}: *C'est difficile, ouai !*

Mathilde_{TR}: Well, the thing is that at times, we find the task makes sense. Well, for us, it makes sense for us, but it is not what [Dublin-lecturer] expects or what you [Lyon-lecturer] expect. [...] And we think... "This works for me", "Well, me too" but, in fact, there is something that is not right, although, for us, it's ok so we don't necessarily see what needs to be changed.

Adèle_{TR}: It's tough, yeah!

In Excerpt 7.5, the tutors emphasise the mismatch/contradiction between their own historical understanding of session plans based on *FLE* and the lecturers' expectations for the VC interactions. Mathilde_{TR}'s remark reveals the emergence of a dilemma for tutors as their own historical understanding of L2 teaching does not match with the Dublin and Lyon lecturer's needs and expectations of an online asymmetrical collaboration. This echoes the point on lack of clarity regarding the distance institution expressed in the previous section by the French researcher. The tutors' dilemma can be interpreted as a manifestation of a lack of understanding of the tutee system's norms, rules, division of labour and community expectations. Consequently, a sharp rise in the tutees' efforts to connect with Dublin module needs designated by the code ELAmT106_MIMA (Instruction_meta: connects with macro module level needs) is noted in sessions 3 and 4 as tutors became conscious of this lack of understanding on their part following the Dublin-lecturer's visit to Lyon after session 2 and tried to rectify it. Table 7.2 gives a meso-level comprehensive view of the % occurrence of ELAmT106_MIMA in all the online interactions in the distinguished corpus. Furthermore, a view of the macro level emerging interactions in Table 7.3 (p. 188) also shows the highest % occurrence of "Learning environment & curriculum-based talk" (LEC) by all tutors in session 3.

Table 7.2: Occurrences (%) of ELAmT106_MIMA in the online interactions

| | | | | |
|----------------------|-------------------------------|--------------------------------|----------------------------------|--------------------------------|
| Annotation | Adele_{TR}_S1% | Emilie_{TR}_S1% | Melissat_{TR}_S1% | Samiat_{TR}_S1% |
| ELAmT106_MIMA | 0.28 | 0.50 | 0.00 | 0.00 |
| Annotation | Adele_{TR}_S2% | Emilie_{TR}_S2% | Melissat_{TR}_S2% | Samiat_{TR}_S2% |
| ELAmT106_MIMA | 1.99 | 0.00 | 0.37 | 1.97 |
| Annotation | Adele_{TR}_S3% | Emilie_{TR}_S3% | Melissat_{TR}_S3% | Samiat_{TR}_S3% |

| | | | | |
|----------------------|--------------------|---------------------|----------------------|--------------------|
| ELAmT106_MIMA | 5.00 | 0.69 | 3.05 | 1.72 |
| Annotation | AdeleTR_S4% | EmilieTR_S4% | MelissATR_S4% | SamiaTR_S4% |
| ELAmT106_MIMA | 4.95 | 1.99 | 1.30 | 3.72 |
| Annotation | AdeleTR_S5% | EmilieTR_S5% | MelissATR_S5% | SamiaTR_S5% |
| ELAmT106_MIMA | 1.88 | 2.86 | 3.42 | 1.13 |
| Annotation | AdeleTR_S6% | EmilieTR_S6% | MelissATR_S6% | SamiaTR_S6% |
| ELAmT106_MIMA | 2.11 | 0.00 | 2.67 | x |

Excerpt 7.6 below taken from EmilieTR's third online session illustrates this tutor-initiated connection with the macro module needs at the micro-interaction level.

Excerpt 7.6: Online_interaction_EmilieTR_session3

EmilieTR: (06:56) *ben c'est super\ nous aussi on aime on aime beaucoup ici*
(07:01) *pouvoir parler avec (.) avec des étudiants nous on est très très contents*
(07:05) *même si apparemment on a des questions un peu (.) un peu bizarre dès fois*
((rires))
(07:11) *c'est (.) bon*
((rires))
(07:14) *on a vu votre votre professeur on s'est un petit peu expliqué*
(07:22) *à propos de tout ça donc ça devrait être moins bizarre pour la suite*
(07:24) *alors ben justement*
(07:26 - 07:37) *tu n'y fin (.) j'aimerais bien savoir ce qu'est une (.) une*
business school/ parce que je ne sais pas vraiment à quoi ça correspondrait en
france\donc (.) essayez de m'expliquer ça

EmilieTR: (06:56) *that's great\ we too love*
(07:01) *talking to (.) to students we are really delighted*
(07:05) *even though apparently our questions are a bit (.) a bit strange sometimes*
((laughter))
(07:11) *That's ok*
((laughter))
(07:14) *We met your teacher and we discussed about this a bit*
(07:22) *About all this so it should be less strange from now on*
(07:24) *Speaking of which*
(07:26 - 07:37) *You haven't well(.) I would like to know what is a (.) a*
business school/because I don't really know what it could be related to in
france\so (.) try to explain it to me

As seen in the previous chapter, this question designed in the third session plan "I would like to know what is a (.) a business school/because I don't really know what it could be related to in france" is designed to try and understand the tutees' profiles as future professionals and their expectations with regard to the VC sessions from a FOS perspective. It also reflects the tutors' preoccupation with aligning the VC sessions with the Dublin module/ macro-level objectives. In

his post-interview (see Excerpt 7.7), the Lyon-lecturer notes that the biggest risk for him in such distant collaborations is to bridge the macro level inter-cultural gap in asymmetrical distance collaborations shaped by their respective cultures, rules, communities and objectives while engaging in a VC-mediated collaborative learning activity.

Excerpt 7.7: Post-interview Lyon-lecturer

Lyon-lecturer: *La prise de risque elle est toujours en fait au niveau de que tout le monde trouve son compte c'est-à-dire que [Dublin-lecturer_firstname] elle a des vrais exigences [...] et puis moi j'ai des exigences de formateur et en gros c'est toujours la difficulté c'est toujours de faire coller l'un à l'autre sans que ça vienne trop fatiguant trop prenant pour mes étudiants [...] et c'est là où on voit qu'il y a eu aussi l'ajustement interculturel.*

Lyon-lecturer: The risk is always at the level that everybody should benefit from it as [Dublin-lecturer_firstname] has real requirements [...] and as for me I have requirements as a teacher-trainer and basically it's always difficult to match both without asking my students for too much work [...] and that is where the intercultural adjustment took place too.

Therefore, the emphasis on cultural exchange for L2 learning does not only manifest at the level of the meso session design and micro level interactions but also at the macro project design level as both institutions need to understand and take into consideration the encompassing cultural and institutional norms and constraints within which each activity system operates.

7.1.3 Difficulty in adapting peers' session designs

This lack of clarity regarding the tutee institutional culture, norms and rules, therefore, manifested itself in the design of the weekly sessions that were planned on a rotational basis by the tutors as part of their own learning activity system (illustrated in Chapter 4). According to the Dublin-lecturer in Excerpt 7.3, the designed session plans she received, prior to her feedback to tutors, initially reflected a lack of understanding regarding the tutee system's needs.

The tutees with relatively less teaching experience seemed to benefit from this division of labour. Victor_{TR} suggests in Excerpt 7.8 that co-designing the sessions afforded the ability to “individualise” or adapt the sessions designed by others to one's own tutees. This collaborative effort in turn helped the tutors gain insight into designing the online sessions.

Excerpt 7.8: MA Dissertation Victor_{TR}

Victor_{TR}: *“L'une des raisons qui expliquent pourquoi ce cours en particulier a été très formateur pour moi réside justement dans le fait que nous étions en charge en partie seulement de nos séances. J'ai ainsi pu développer une compétence d'individualisation de mon enseignement.*

J'ai appris à m'adapter au profil de mon apprenant, à son parcours, à ses attentes pour rendre le travail effectué par mes pairs le plus approprié possible pour lui."

Victor_{TR}: "One of the reasons why this class was particularly enriching for me resides in the fact that we were in charge of a part of the sessions only. I could, therefore, develop the competence to adapt the tasks to my context, to my tutee's profile, his academic objectives, his expectations in order to make my colleagues' work the most relevant for him."

Hence, division of labour afforded group reflection to conceptualise the *FOS* session plans that tutors were not familiar with. Nevertheless, the challenge of tool-subject mismatch was felt with respect to the session plans. The tutors were students themselves and found this aspect challenging as they did not necessarily share their colleague's vision regarding the session plans and/or their vision did not necessarily match the tutee system's expectations and institutional constraints. This is reiterated in the Lyon-lecturer's comment below.

Excerpt 7.9: Post-interview Lyon-lecturer

Lyon-lecturer: *On est parti sur du français sur (des pistes) spécifiques euh ça nous a amené vers des choses que les étudiants connaissaient assez assez mal et puis surtout [Dublin-lecturer_firstname] avait le souci depuis le départ d'intégrer ça à son cours et et ça l'a créé alors du coup ça a créé peut-être plus de pression de notre côté.*

Lyon-lecturer: We started working on French for specific purposes euh that led us to things that the students (tutors) hardly knew anything about and then [Dublin-lecturer_firstname] was worried right from the beginning about aligning this to her own module and that created so that created more pressure for us maybe.

The mismatch between the pedagogical object and the lack of knowhow on the part of the tutors to design *FOS* specific sessions that could be integrated in the learner main module soon appeared. Consequently, the requirement of matching the VC sessions to the main module objects created "pressure", "destabilisation", and even stress and anxiety for both the tutor and tutee systems.

Co-designing the sessions with peers afforded peer-collaboration in the ISMAEL project that allowed to face this challenge as part of division of labour. This afforded group work and learning but at the same time rendered the adaptation of a peer's session plan to one's own tutees' specific needs difficult. Adele_{TR} emphasizes in Excerpt 7.10 her rejection of her peers' third session plan and the improvisation of her own questions as she found the designed questions repetitive.

Excerpt 7.10: Debriefing post-session3

Adele_{TR}: *Moi, hier, j'ai dévié pas mal du sujet. J'avais l'impression qu'elles s'ennuyaient beaucoup. Il y avait un espèce d'ennui sur les*

questions... Alors, j'ai l'impression qu'on les emmène pas dans ce qu'elles attendent, dans le vif du sujet de l'entreprise !

Adele_{TR}: For me, yesterday, I deviated quite a lot from the session plan. I felt that they were very bored. The questions seemed boring... I feel that we are not leading them into what they are waiting for, into the main topic of companies!

After the first two sessions on their life, parents, studies, jobs, etc. (see in chapter 6), Adele_{TR} felt that her tutees wanted concrete, practical information on the French CV and cover letter. Hence, in session 3, Adele_{TR} reframed her own questions based on the tutees' productions and completely flouted the questions designed by her peers on work experience. This is attributed to the fact that Adele_{TR} digressed from the first two session designs as well and had covered many of the questions of the third session in advance. The other tutors in the study's corpus, however, followed the session designs rather scrupulously.

Table 7.3 shows that "Learning Environment & Curriculum-based talk" LEC is at its highest for all four tutor-tutee triads in the third online session (represented by S3). In fact, session 3's LEC is the highest in the whole corpus (See Appendix D, p. 295 for LEC for all triads and sessions). As discussed in the previous section, session 3 was oriented towards LEC as tutors became acutely conscious of the tutees' main module objectives and curriculum constraints and this session is devoted to clarifying the tutees' surrounding learning environment, profile, needs and expectations. Nevertheless, in Adele_{TR}'s case, among all the initiated interaction themes, LEC ranks the highest in her second (28.97%) and third (24.29%) sessions. Moreover, Adele_{TR}'s initiation of LEC surpasses her peers' by a significant margin in the first three sessions. Adele_{TR} accords a lot of importance to LEC right from the beginning. This is the reason why a number of questions designed by her peers seemed repetitive to her as she specified in the debriefings that it seemed like asking the same questions over and over again but formulated in a different way.

Table 7.3: Occurrences (%) of Learning Environment & Curriculum-based talk (LEC)

| | | | | |
|-----------------------|--------------------------|---------------------------|----------------------------|-------------------------|
| Emerging inter-action | Adele _{TR} _S1% | Emilie _{TR} _S1% | Melissa _{TR} _S1% | Sami _{TR} _S1% |
| LEC Total | 4.48 | 0.00 | 1.12 | 0.00 |
| Emerging inter-action | Adele _{TR} _S2% | Emilie _{TR} _S2% | Melissa _{TR} _S2% | Sami _{TR} _S2% |
| LEC Total | 28.97 | 1.45 | 2.70 | 12.28 |
| Emerging inter-action | Adele _{TR} _S3% | Emilie _{TR} _S3% | Melissa _{TR} _S3% | Sami _{TR} _S3% |
| LEC Total | 24.29 | 10.00 | 17.72 | 14.81 |

Although, Adele_{TR}'s interaction-focus embraced the thematic essence of the designed sessions, her ensuing questions were largely determined by her tutees' responses and moods at the moment of the interaction. Adele_{TR} entertained a lot of social small talk with her tutees especially the loquacious Alanna_{TE} who had numerous ideas to express, sometimes at the risk of side-lining the shy co-tutee Catriona_{TE}. Adele_{TR} flouted the session designs 3 and 5 (partly) asserting that what was important for her was that her tutees express themselves freely in L2 rather than stick to the designed activities. The comparatively high occurrences of the code ELAmT132_EQI designating 'Emerging Questions from Interaction' for Adele_{TR} as compared to her colleagues (see Appendix E: Table 1, p. 296 and Table 2, p. 299) validates the enactment of this pedagogical affordance by the tutor from session 2 to session 6.

This analysis reveals the macro-level dynamics of norms, rules, community and division of labour, that is usually the hidden part of the CHAT triangle. This part normally remains invisible in analyses that investigate the online interactions as a disconnected activity. The mismatches in the Dublin-Lyon project described above emerged as a result of the initial lack of clarity regarding the tutee system's hidden part that, however, represented the base for the VC activity.

7.2 Mismatch between the session designs and a triadic interaction

Session/interaction design level dilemma, in this thesis, originated from the inter-systemic mismatches and manifested as inter-nodal tensions within the VC activity. Typically, these tensions take place due to incoherencies between the subject, object and tool in the CHAT triangle. In this study, they manifested themselves between the pedagogical tools for interaction (e.g. the question-answer format and other more complex tasks designed by tutors) and the triadic composition of the subjects, the tutees' proficiency levels and the tutors' inexperience in regulating the online interactions. These manifested as session or meso level manifestations of interaction disruptions or breakdowns in the VC activity.

7.2.1 Question-answer format not adapted to triadic interactions

The challenge to appropriate and adapt the session plan themes to one's own triad presented challenges for triads. It was perceived that the question-answer format of the online interactions that prevailed till session 3 (as shown in the previous chapter) was inadequate for triadic interactions. Moreover, differences in proficiency levels and individual temperaments created a sense of unease for the triads. Tutors were supposed to engage in pedagogical conversations with tutees but the tutor accounts of their difficulty to interact as a triad are numerous in the debriefings. Excerpt 7.11 helps illustrate that.

Excerpt 7.11: Debriefing post-session2

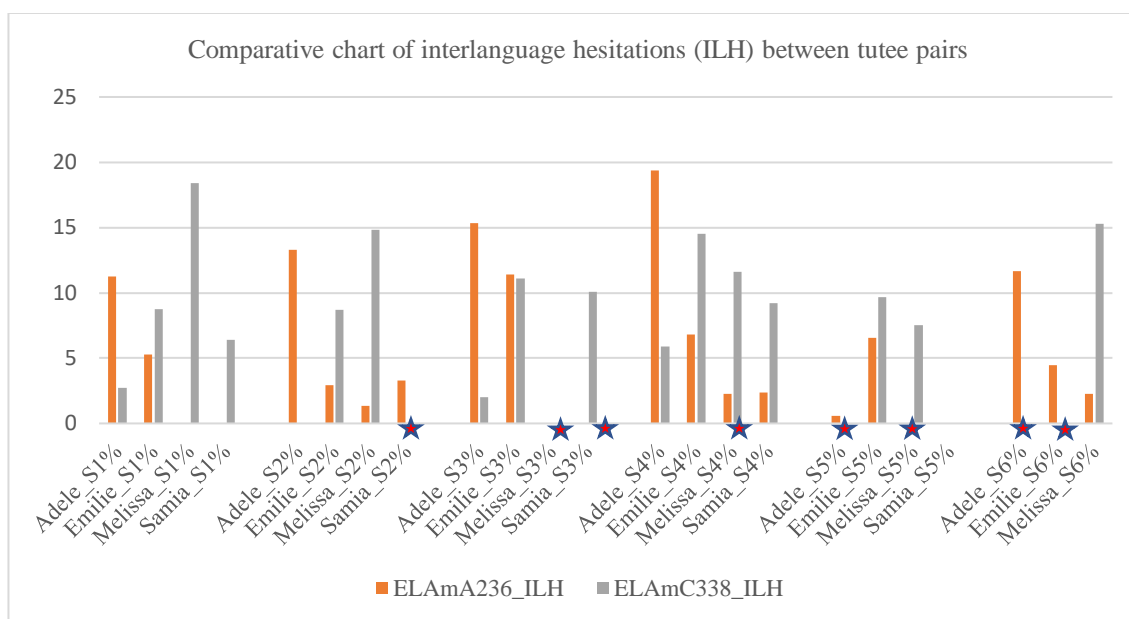
Samia_{TR}: [...] quand j'ai mes deux apprenants, j'ai l'impression qu'il y a un gros mur face à moi [...] Pourtant je skype et tout, assez régulièrement mais c'est vraiment ce que je ressentais. Et, par contre, voilà, le fait d'avoir un apprenant, ça, j'avais l'impression d'être plus à l'aise et, du coup, de moins avoir ce mur. Et, de l'avoir plus face à moi comme si on était vraiment... réellement, je me suis rendue compte, hier, qu'on avait pu euh créer, ouai on va dire ça comme ça : créer un lien et du coup être beaucoup plus à l'aise. Autant moi qu'elle !

Mathilde_{TR}: Mais c'est peut-être parce que t'en as deux et que, du coup, t'en as toujours un seul qui parle et l'autre qui attend. [...] Parce que moi j'en ai toujours une qui parle et l'autre qui attend. C'est vrai que c'est pas pareil que quand il y en a qu'une seule.

Samia_{TR}: [...] when I have both my tutees, I have the impression that there is a huge wall in front of me [...] And yet, I skype and all quite regularly but it is really what I felt. But, having one tutee, that, I felt more at ease and, so, less of the wall. As if we were really, I realised that, yesterday, that we were able to create, yeah let's put it that way: create a link and felt a lot more at ease. Both of us!

Mathilde_{TR}: But that is probably because you have two tutees and so you always have one that speaks and the other one waits. [...] Because for me I always one that speaks while the other one waits. It's true that it's not the same thing when you interact with only one tutee.

Samia_{TR}'s account above follows the second session where she interacted with Angela_{TE} (the most proficient tutee in the corpus) on a one-to-one basis for the first time. Samia_{TR}'s first session with Seane_{TE} and Angela_{TE} was slow and laborious as the knowledge-checking question-answer format did not work in Angela_{TE}'s favour who was from Germany and did not have much experience or knowledge (based on her post-interview) on Franco-Irish work rights, traditions and intercultural comparisons. Samia_{TR} talks in metaphorical terms about “the wall” that prevented her from establishing a link with her tutees. Her colleague Mathilde_{TR}, however, attributes this feeling of blockage to the fact that the tutees do not interact with each other. Moreover, she notes that one of her tutees tends to dominate the interaction floor while the other one waits. This is an issue that appears in the literature when it comes to asymmetrical interactions in small groups (Hampel, 2006). It is quite flagrant in this corpus too. A comparison of the interlanguage hesitations in Figure 7.1 reveals that the tutees who occupied less floor time presented more interlanguage hesitations as compared to their relatively more confident peers in the tutee pairs in each triad.

Figure 7.1: Comparative graph of interlanguage hesitations between tutee pairs

ELAmA236_ILH and ELAmC338_ILH designate ‘interlanguage hesitations’ (described in Table 5.6, p. 113) for tutees A (tutee with high participation) and C (tutee with low participation) in each triad. An asymmetry in the tutees’ will to take initiatives is observed, with one tutee often dominating the other to a greater or lesser extent, in each triad. Alannah_{TE(A)} (in Adele_{TR}’s triad) stands out in Figure 7.1 as being the most loquacious speaker in the corpus, the number of erroneous and unintelligible productions she makes supersedes the others. Alannah_{TE} herself was aware of her faulty productions, nevertheless, this did not keep her from participating actively. In session 4, Alannah_{TE} dominates the speech floor and at the same time beats all scores of erroneous productions. However, it is noteworthy that despite her pronunciation and syntactical shortcomings she has a high level of cultural awareness, oral comprehension and critical thinking apart from continuously taking the initiative to express her ideas in the interactions. The absence of a few lines (orange or grey) in Figure 7.1 is attributed to technical breakdowns designated by a red star. Nonetheless, a general trend of the grey line (tutee C) superseding the orange one (tutee A) in all triads (except in Alannah_{TE}’s case) prevails. The lowest ILH are observed for high proficiency tutees, Angela_{TE} (Samia_{TR}’s tutee) and Ana_{TE} (Melissa_{TR}’s tutee), despite their high participation rates. Fiona_{TE}’s (Irish) (Emilie_{TR}’s tutee A) ILH ranks third. However, Fiona_{TE} is not very talkative, hence, reducing the chances of making errors. Similarly, Catriona_{TE}’s ILH ranks low but that is because of her low participation due to shyness/ lack of initiative and technical breakdowns. Hence, in triadic interactions, there is often (if not always) one tutee dominating the interactions. Alejandra_{TE(C)} (in Melissa_{TR}’s triad) was the least proficient speaker and faced significant challenges in interacting. When not facing any technological breakdowns as in

sessions 1, 2 and 6, her ELAmC338_ILH breakdowns are the highest. Excerpt 7.12 presents an example of the frequent interaction blockages she faced in the course of the interactions.

Excerpt 7.12: Alejandra_{TE(C)}'s interlanguage hesitations in Session 1

Alejandra_{TE(C)}: (37:36-37:40) *je pense que les: pauses café c'est très importante/*
 (37:41-37:44) *et: comme euh et ana a dit/ euh:*
 (37:45-37:46) *euh je vais:*
 (37:47-37:52) *je pense aussi "that" ana est: euh en espa- espagne x*
 (37:52-37:56) *et c'est: i-*
 (37:56-38:01) *xx euh "i don't" je ne sais pas "to" dire eh "in french"*
 (38:01-38:03) *heum: ils aussi*
 (38:03-38:05) *euh: euh:*
 (38:07-38:10) *"the employee"/ et: il heum:*
 (38:11-38:13) *je ne sais pas\ <((en riant)) (inaud.)>*

Alejandra_{TE(C)}: (37:36-37:40) *i think that the: coffee breaks it's very important/*
 (37:41-37:44) *and: like euh and ana said/ euh:*
 (37:45-37:46) *euh i'll:*
 (37:47-37:52) *i think also "that" ana is: euh in spai- spain x*
 (37:52-37:56) *and it's: i-*
 (37:56-38:01) *xx euh "I don't"((uses English)) I don't know "to"*
((uses English)) to say eh "in french" ((uses English))
 (38:01-38:03) *heum: they too*
 (38:03-38:05) *euh : euh :*
 (38:07-38:10) *"the employee"((uses English))/ and: he heum:*
 (38:11-38:13) *i don't know\<((laughter)) (inaudible)>*

Alejandra_{TE(C)}'s attempt to respond to Melissa_{TR}'s question regarding the importance of coffee breaks in Spain (Alejandra_{TE(C)} is Spanish) as compared to France lasts for about 37 seconds. In addition to all the hesitations markers (euh, heum and pauses), Alejandra mixes English words as she tries to convey that she does not know the words in French. She relies on her peer's response (given earlier) for her own response (*et: comme euh et ana a dit/ euh*) (line 37:41) but fails to complexify it any further as she lacks the vocabulary and syntactical structures to engage in comparative reasoning. Low proficiency speakers found the fast-paced synchronous channel extremely stressful as stressed in their post-project VoiceThread reports. The tutor's constant and direct gaze further accentuates this stress. Ana_{TE(A)}, Alejandra_{TE(C)}'s more proficient peer, speaks Spanish and so intervenes to ask her what she means in Spanish in order to translate it for her. This was a case of peer help that will be discussed further in the next section. In any case, it would be advisable to provide pre-session support to low proficiency tutees by sharing the session themes, relevant vocabulary and some syntactical structures before the sessions following a flipped approach.

Tutee reticence to participate in triadic settings is also linked in this study's corpus to tutees expecting to be attributed turns. This is reflected in the high number of turn-giving noted in the online interactions (see code ELAmT110_TG in Appendix E: Table 1, p. 296 and Appendix E:

Table 2, p. 299). This reflects the tendency of most tutees (except Alanna_{TE}, Ana_{TE} and Angela_{TE} as high performers) to wait for the tutor to solicit their participation rather than take the initiative to interact freely. Excerpt 7.13 reflects the tutor's difficulty in shaping the pedagogical conversation if tutees do not take the initiative to participate on their own or wait for attribution of turns like in a classroom interaction setting.

Excerpt 7.13: Debriefing post-session3

Etienne_{TR}: *La distribution de la parole et essayer de travailler sur les interactions qu'ils peuvent créer entre eux.*

Lyon-lecturer: *Vous avez du mal avec ça ?*

Etienne_{TR}: *Oui, non, par exemple, là, je, j'ai posé une question et puis il y a eu un moment d'attente. Et, il y en a une qui me dit « Ah, c'est à moi de répondre ? » ou essayer de leur faire comprendre que si ils veulent prendre la parole, ils peuvent la prendre ! Je suis pas distributeur absolu de la parole.*

Etienne_{TR}: Turn-taking and try to work on interactions that they can create between themselves.

Lyon-lecturer: You have a problem regulating that?

Etienne_{TR}: Yes, no, for example, there, I, I asked a question and there was a moment of silence. And, one of them said to me "Ah, is it my turn?" or try to make them understand that that if they want to speak, they can speak ! I am not the absolute distributor of speech.

The question-answer format manifests itself as a negative affordance of the triadic setting in this learning environment. As already described in the previous chapter, the question-answer format dominated the first three sessions. This did not encourage a triadic interaction but rather a dyadic tutor-tutee interaction while the second tutee waited for his/her turn. The question-answer interaction format for triads encouraged the tutors to engage in a dyadic exchange giving way to an Initiation-Response-Feedback (IRF) pattern of interaction, thus, leaving very little room for triadic exchanges and peer-collaboration in the interactions. Excerpt 7.14 elucidates this.

Excerpt 7.14: Melissa_{TR}_S1_online_interaction

Mélissa_{TR}: (08 :47) *est-ce que vous [savez com]bien on a de semaines:/ -n*
(08 :50) *euh:\ de congés payés par an/ (.) en france*

Ana_{TE} shakes head to say no

Mélissa_{TR}: (08 :54) *on a plusieurs semaines en france/*
(08 :57) *alejandra/ est-ce que tu sais combien on a de:*
(09 :00) *de semaines de de de vacances payées/ (.) en france/*

Alejandra_{TE}: (09 :05) *en france/ euh (.) °mh° je ne sais pas/ non*

- MelissATR:** (09 :10) °non°/
MélistATR : (09 :11) *alors/ on on a en fait on a droit à cinq semaines*
AnATE : (09 :14) *CI[NQ]*
MélistATR : (09 :15) *[de vacan]ces par an/*
AlejandrATE : (09 :16) *ah (.) [cinq/]*
MélistATR : (09 :16) *[où on reç]oit/ de l'argent\ oui*
- MelissATR :** (08 :47) do you know how many weeks we have
(08 :50) euh:\ of paid holidays per year/ (.) in france/
AnATE shakes head to say no
- MelissATR:** (08 :54) we have many weeks in france.
(08 :57) Alejandra do you know how many weeks
(09 :00) of of of paid holidays we have in France?
- AlejandrATE :** (09 :05) in France/ euh (.) °mh° I don't know/ no
- MelissATR :** (09 :10) no /
- MelissATR :** (09 :11) So/ we we have well rightfully we have five weeks
- AnATE :** (09 :14) *FI[VE]*
- MelissATR :** (09 :15) *[of holidays] per year/*
- AlejandrATE :** (09 :16) *ah (.) [five/]*
- MelissATR:** (09 :16) *[for which] we get paid\ yes*

Hence, MelissATR's general knowledge questions allow to check the tutees' knowledge regarding French work rights that the tutees either have the answer to or do not. Subsequently, asking the tutees to compare and contrast with the Irish work rights afforded the tutees more room for free expression and intercultural reflection. However, apart from AlannaHE who actively compared the French and Irish work conditions with the help of her cultural knowledge, most of the other tutees failed to interact actively on this topic as they did not have any work experience or the knowledge of work rights or both. Another negative affordance of this question-answer interaction format for triads was noted by CatrionATE whose participation was heavily blocked by her outgoing peer AlannaHE.

Excerpt 7.15: Post-interview CatrionATE

CatrionATE: *C'était un peu difficile de travailler avec une autre personne parce que, hum... parce que AdeleTR on lui a demandé une question, et hum elle hum [...] elle a pris toutes mes idées dans ses réponses et à mon tour j'ai rien à dire. Mais, mais aussi c'était pour - hum si AdeleTR a*

demandé une question peut-être un peu difficile pour moi elle me donne des idées.

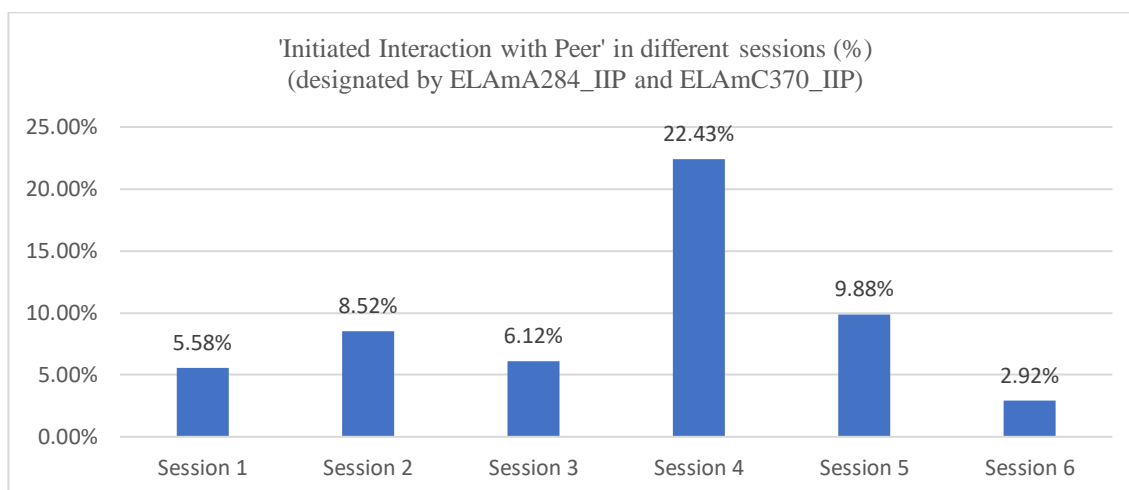
Catrionate: It was a bit difficult to work with another person because, hum... because Adele_{TR} a question, and hum she hum [...] she took all my ideas in her answer and when it was my turn I had nothing left to say. But, but also it was for - hum if Adele_{TR} asked a question that was difficult for me she gave me ideas.

Excerpt 7.15 points out that when the tutor asked the second tutee the same question that the first tutee had already answered, then the second tutee was left with very few options/ideas to express in L2 as the most evident responses had already been taken up by the first tutee. This phenomenon put the less confident or shyer tutee in further disadvantage in a triadic interaction. In her post-interview, Catrionate reflects on the positive and negative sides of having to interact in a triad. Catrionate suggests that her peer both constrained her participation by expressing first the same ideas as her but also helped her by giving her new ideas when she ran out of ideas. The tutor pairs in triadic interactions, therefore, were not adapted to a question-answer format and so peer collaboration was introduced to encourage inter-tutee interaction.

7.2.2 Triadic VC interactions constraining peer collaboration

In terms of session designs that facilitated peer collaboration, sessions 4 and 5 afforded the most possibilities of peer-collaboration. Firstly, because of the change from the question-answer format of the first three sessions. Secondly, because of the tutors' insistence, aided by the nature of tasks, that tutees discuss amongst themselves rather than with the tutor. This translated as 'Initiated Interaction with Peer' represented by the code IIP, with the strongest occurrence appearing in session 4 (22.43%) as shown in Figure 7.2. Session 6 based on a purely question-answer format of an interview did not allow any peer collaboration.

Figure 7.2: Enactments of 'Peer Help' in different sessions (%)



The changes in sessions 4 and 5 were a result of the tutors' reflections on their session designs as echoed in Victor_{TR}'s Excerpt 7.16.

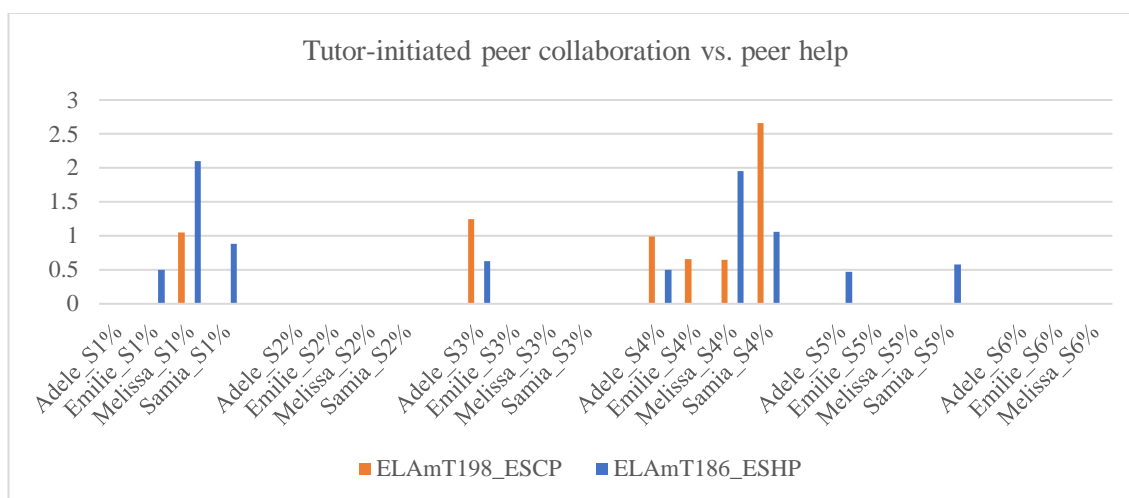
Excerpt 7.16: MA Dissertation Victor_{TR}

Victor_{TR} : *Je crois que tout le groupe a bien su s'adapter en cours de route aux remarques de [Dublin-lecturer_firstname], à savoir une tendance de notre part à présenter trop de documents (images, vidéos) aux étudiants dans le but de leur poser des questions sur ceux-ci. Il a fallu revoir nos façons de faire et plutôt nous concentrer à proposer des mises à situations où nos apprenants seraient amenés à prendre plus souvent la parole, et que celle-ci soit la plus « libérée » possible, et non contrainte par des questions trop fermées et directives.*

Victor_{TR}: I think that the whole tutor group adapted themselves quite well over the course of the exchanges to [Dublin-lecturer_firstname]'s feedback, notably, our tendency to present students with too many documents (images, videos) in order to question them. We had to change our way of doing things and focus on proposing situations that would help our tutees speak as much as possible, and as "freely" as possible, instead of constraining them with closed questions that are overly directive.

Victor's observation above in his dissertation is interpreted here in the following terms: Following the feedback from the Dublin-lecturer, tutors changed their session designs that initially followed a question-answer format, heavily relying on images and videos. This was transformed to presenting contextual/problem spaces or "*des mises à situation*" to tutees, where they could be left free to express ideas that would not be constrained by heavily guided questions.

The new designs engineered by the tutors in sessions 4 and 5, therefore, aimed to harness greater tutee participation affording free expression of ideas emanating from the tutees themselves. The following chart showcases tutee-initiated linguistic actions for peer collaboration (ELAmT198_ESCP) versus peer help (ELAmT186_ESHP) for all four triads over the six sessions. Figure 7.3 illustrates that barring two exceptions, peer help is solicited by tutors more often than peer collaboration in the first three sessions. This, however, changes in session 4, as following the Dublin-lecturer's feedback, session 4 is dedicated to a peer collaboration task that is taken up by all tutors with more or less insistence (for example, Sami_{TR} scores higher than Emili_{TR} in session 4; Meliss_{TR}'s score is low due to technical problems). Emili_{TR} is the only tutor who does not initiate any peer help in session 4 or in any of the other sessions except session 1 for that matter. This may be because both her tutees have low L2 levels. Sami_{TR}'s insistence on peer collaboration is the highest in session 4 as it is a challenging session and the proficiency gap between her tutees is significant. Session 6 was dedicated to a mock interview and tutors do not focus on peer collaboration or help.

Figure 7.3: Tutee peer collaboration vs. peer help

It is noteworthy that there is a difference between peer help and peer collaboration. Even though tutees were happy to help their peers overcome a comprehension or expression problem, quite a few instances show that tutees were not interested in discussing with their less proficient peers. Tutors themselves had to continuously guess and reformulate the tutees' productions as discussed in the previous chapter. The tutor linguistic and pedagogical action where they 'Repeat or Add on Tutee Production to Verify or for Corrective Feedback' (designated by ELAmT194_RSPV) is the third most frequent (154 instances) tutor action in the online interactions after 'Back-channeling' and 'Managing Mode/Material' instructions by tutors as highlighted in Table 7.4.

Table 7.4: Top five most frequent tutor linguistic and pedagogical actions in online interactions

| Annotation | Description | Occurrences |
|----------------------|---|-------------|
| ELAmT152_BCh | Response type: Back-channeling | 225 |
| ELAmT146_MMR | Response theme/type: Managing Mode/Material | 172 |
| ELAmT194_RSPV | Scaffolding: Repeats/Adds on Tutee Production to Verify or for Corrective Feedback | 154 |
| ELAmT196_TRPFC | Scaffolding: Repeats/Adds on own Production to facilitate tutee comprehension | 112 |
| ELAmT132_EQI | Question type: Emerging Question from Interaction | 106 |

ELAmT194_RSPV is also the first and foremost scaffolding action enacted by tutors that is a predominantly pedagogical action as it ensures not only a coherent interaction by verifying what the tutee tries to express in his/her interlanguage but also affords corrective feedback by reformulating tutees' erroneous production in more appropriate terms. Excerpt 7.17 illustrates

this pedagogical action enacted by MelissATR as Alejandrate holds her head and laughs nervously as she does not manage to communicate her ideas due to lexical deficiency. Alejandrate finally gives up and looks away from the screen (see Screenshot 7.1).

Screenshot 7.1: Alejandrate's_S1 embarrassed when confronted with lexical difficulty

Image 1 (38:13-38:15)

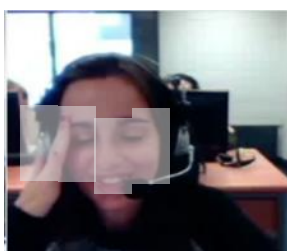


Image 2 (38:29)

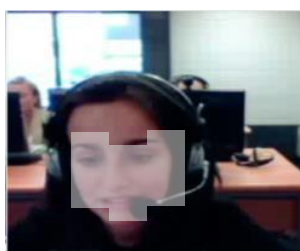
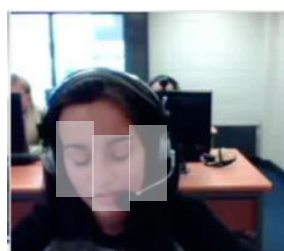


Image 3 (38:34-38:35)



Hence, MelissATR literally puts the words into Alejandra's mouth as shown in Excerpt 7.17.

Excerpt 7.17: Online-interaction MelissATR_S1

MelissATR : (38 :15) [euh:] en espagne/ (.) euh vous vous
(38 :19) ce ce est-ce que vous prenez plus de pauses que les
français/ est-ce que vous buvez euh

Alejandrate : (38 :23) [je pen-/]

MelissATR : (38 :23) [moins de café] que les français/

Alejandrate : (38 :25) je pense que: eh plu/ au:
(38 :29) eh: des des: des mêmes/ café/
(38 :34) des mêmes xx/ (.) (ok)\

Gesture: Alejandrate tries to make a sentence but gives up and looks away from screen (image 3)

MelissATR : (38 :36) vous vous vous buvez autant de café que en france\ c'est ça/

Alejandrate : (38 :41) oui

MelissATR : (38 :42) et vous (.) prenez autant de pauses/ qu'en france

Alejandrate : (38 :46) oui

MelissATR : (38 :15) [euh :] in spain/ (.) euh you you
(38 :19) this this do you take more
breaks than the French/ do you drink euh

Alejandrate : (38 :23) [I thin-/]

MelissATR : (38 :23) [less coffee than the french/]

Alejandrate : (38 :25) I think that eh more/ to
(38 :29) eh the the: the same/ coffee/
(38 :34) the same xx/ (.) (ok)\

Gesture: Alejandra_{TE} tries to make a sentence but gives up and looks away from screen

- Melissa_{TR} :** (38 :36) you you you drink as much coffee as the french do\
right/
- Alejandra_{TE} :** (38 :41) yes
- Melissa_{TR} :** (38 :42) and you (.) take just as many breaks/ as in france
- Alejandra_{TE} :** (38 :46) yes

The frequent ‘repetitions or additions’ on Alejandra_{TE}’s productions by Melissa_{TR} to guess what she is saying or to propose ‘corrective feedback’ in the highlighted lines (bearing the time stamps 38:23, 38:36 and 38:42) reflects the difficulty low proficiency tutees face in synchronous interactions that are characterized by a fast pace. It also depicts the difficulty tutors face in deciphering the less proficient tutee’s erroneous productions and echoes the metaphorical wall that Samia_{TR} had referred to earlier. Tackling such situations represents a certain amount of linguistic maneuvering involving guessing and acquiring validation from tutees. ANATE the more proficient tutee in Melissa_{TR}’s triad noted in her post-interview that “it was difficult for Melissa_{TR} to work on the same task with two tutees because there would be things that Alejandra didn’t hear, and for me it was too easy”. Hence, if tutors themselves faced difficulties in understanding the tutees, it may not be realistic to expect peer-collaboration in such triads as the tutees do not necessarily possess the pedagogical skills to handle such interaction breakdowns. Moreover, interpreting erroneous productions does not help the more proficient learner learn the language. In Adele_{TR}’s triad, for example, each time Adele_{TR} tried to initiate a debate or an interaction of ideas between the tutees, she had to recapitulate Alannah_{TE}’s points for Catriona_{TE} to understand as Alannah_{TE}’s erroneous pronunciation and syntactical structures were very difficult to follow. Tutees in general did not want to interact with other learners. This is also expressed by Alannah_{TE} when asked by her tutor if the online interactions and *bilan* were helpful to the tutees.

Excerpt 7.18: Online-interaction Adele_{TR}_S4

- Alannah_{TE} :** *et hum: c'est bien/ en même temps que quand euh:\ euh je peux euh:
réécouter/ euh quand euh\ tu re- euh tu reparler/ parce que c'est euh\ euh c'est
bon ah pour at- ah attende un: accent français/*
- Alannah_{TE} :** and hum : it’s good/ at the same time that when euh:\ euh I can euh:
listen over\ euh when euh\ you re- euh speak over\because it’s euh\
euh it’s good ah to li- ah listen at a: french accent/

Hence, Adele_{TR}’s attempt in session 3 does not result in a genuine effort at peer collaboration but rather an imitation of the question-answer format. Adele_{TR} tried to make the tutees collaborate again in session 4 but this again failed to yield the desired results. This is illustrated in

Excerpt 7.19. This interaction chunk in the fourth project-pitching session attempts to encourage a collaborative interaction between tutees to come up with a meal deal for a kid's party at McDonald's. This exchange lasts for four minutes (13:44-17:45) with the tutor explicitly soliciting peer collaboration on two occasions as the tutees continued to talk to the tutor rather than collaborating together.

Excerpt 7.19: Online-interaction Adele_{TR}_S4

Adele_{TR} : (13 :43-13 :59) *donc vous allez travailler ensemble/
 \je vous laisse euh:\ réfléchir (.) deux petites minutes ensemble/
 \euh comme si que vous étiez en cours/
 \vous vous trouvez un projet/
 \et vous allez me dire/(.) comment vous \organisez ce goûter/ et euh: voilà*

Adele_{TR} : (14 :48-15 :00) *quand tu: si tu as des questions: que tu te demandes/
 \parle avec catriona\
 \essayez de dire toutes les deux/ c'est votre projet/
 \et moi je vous note\ (.) moi je suis le manager je je vous juge*

Adele_{TR} : (13 :43-13 :59) *so you're going to work together/
 \i will let you euh:/ think (.) about it for two minutes
 \euh as if you were in class
 \you will look for a project
 \and you will tell me/ (.) how you'd \organise this b'day meal/
 and euh: that's it*

Adele_{TR} : (14 :48-15 :00) *when you : if you have any questions or doubts/
 \talk to catriona about it\
 \try to talk with each other/ it's your project
 \and i will evaluate you\ (.) i am the manager i i will judge you*

The exchange largely remains a monologue with Alannah_{TE} dominating the speech floor despite her effort to include Catriona_{TE} and even encourage her as highlighted in lines bearing the time stamps 14:57 and 15:22 respectively. Alannah_{TE}'s numerous hesitations and repetitions are hallmarks of her oral interlanguage productions. Nevertheless, she conveys an urgency to come up with immediate ideas that her taciturn peer Catriona_{TE} fails to respond to. Catriona hesitates and laughs nervously, repeats "I don't know" twice. So, finally, Alannah grabs the speech floor again in line 15:24

Alannah_{TE}: (14:57) *[ok\] ok\ [-k\] catriona*

Catriona_{TE}: (15:06-15:24) *hu[m:] \ h[um:] (.) on a besoin de décider quelle sorte de
 goûte/ hum
 on veulent hum:\
 "I don't know" °((rires))° [°euh°]*

Alannah_{TE}: (15:22) *non non non\ [c'est euh:] c'est bon*

Catriona_{TE}: (15:22-15:24) *°euh° "I don't"*

- AlannahTE:** (15:24-15:44) *on doit on doit choisir/ euh les goûts/
 \euh pour euh les enfants de cette soirée euh
 \mais de: de plus euh: je pense que on doit euh
 \on doit euh: "like" hum:
 \euh: noter/ euh combien de enf- euh des enfants/ p[our euh:]*
- CatrionATE:** (15:44) *[mh mh:/]*
- AlannahTE:** (14:57) *[ok\] ok\ [-k\] Catriona*
- CatrionATE:** (15:06-15:24) *hu[m:] h[um:] (.) we need to decide what type of
 b'day mea/ hum
 we want to:\
 "I don't know" °((rires))° [°euh°]*
- AlannahTE:** (15:22) *non non non\ [it's euh:] go on*
- CatrionATE:** (15:22-15:24) *°euh° "I don't"*
- AlannahTE:** (15:24-15:44) *we need to we need to choose/ euh the tastes/
 \euh for euh the children in this party euh
 \but more moreover euh: i think that we need to euh
 \we need to euh: "like" hum:
 \euh: note down/ euh how many chil- euh of children/ f[or euh:]*
- CatrionATE:** (15:44) *[mh mh:/]*

Unlike MelissATR and SamiATR's triads where the disparity in the peers' linguistic deficiencies makes peer collaboration challenging, in AdeleTR's triad, it is CatrionATE's inability to cope with her peer's rapid-fire ideas in equal measure under the time and gaze pressures induced by the synchronous interaction that freeze her. Furthermore, CatrionATE points out in her post-interview, her lack of interest in AlannahTE's productions as compared to her tutor's productions.

Excerpt 7.20: Post-interview CatrionATE

CatrionATE: I don't know probably the lips and her gestures but when AlannahTE was speaking maybe not because she (doesn't really) she more... I find that she talked to the to the table more than you know so it was a bit harder when she spoke but I tried to concentrate on when Adèle spoke because I want to understand as much as I could to because she'd ask us questions I want to ((rires)).

It is clear in Excerpt 7.20 that CatrionATE found it harder to follow when AlannahTE spoke. Moreover, CatrionATE stresses that she made an effort to listen to and understand AdeleTR "as much as I (she) could", implying that she was not necessarily inclined to make an effort to understand when AlannahTE spoke.

Other instances of failure in peer collaboration emerge in MelissATR and EmiliETR's cases as well. Despite having roughly similar levels, EmiliETR's tutees, AidentE and FionATE, remain silent when asked to collaborate on the creative themes in session 4 resulting in an interaction breakdown. EmiliETR first shares keywords to overcome this. After a lot of coaxing she gives up and moves on to a FLE exercise activity.

Therefore, although peer collaboration was encouraged by tutors, this was not taken up easily by learners as they had trouble understanding the less accurate speaker. However, the tutors' suggestions to tutees to help a peer are taken up more successfully. It is even found that the less proficient tutee understood the more proficient peer's explanation better in place of the tutor's explanation when confronted with comprehension breakdown. However, learner shyness or lack of confidence as manifested by CatrionATE impeded her from taking initiatives as expressed in Excerpt 7.21.

Excerpt 7.21: Post project questionnaire CatrionATE

CatrionATE: "I was paired with a tutor and another student, and often I felt that this was a disadvantage as I found it difficult to speak openly. Also they were a lot more talkative than me and I did not have as much time to speak and found that I spent most of the sessions listening rather than participating myself."

Therefore, interaction blockages in triadic interactions are manifested in terms of psychological blockages, affective links, tutees passively waiting for tutor instruction to take turn, or simply the tutees' desire to interact with the tutor on an individual basis. Furthermore, the online interactions reveal that unless the tutees took initiatives to use L2 without being too self-conscious, they risked marginalising themselves in synchronous interactions. L2 confidence is equated to idea/concept formation internally and the ability to express them externally. As CatrionATE became aware of this, she decided to work on it. This was reflected in her post-project Voicethread.

A number of issues thus emerged that contributed to the perceived difficulty in triadic interactions:

- Asymmetry in tutees' L2 proficiency,
- Asymmetry in learner confidence and initiative-taking,
- Learners' expectation to be attributed turns,
- Tutor question-tutee answer format of session design,
- Asymmetry in learner familiarity with the proposed themes.

Although the points stated above are inter-related in VC, the first two points relate to learner competence, learning and development, while the latter four points are linked to interaction design that can be regulated in the online interactions. This regulation is often engineered by the tutor as the most ‘powerful’ or L2 competent member of the triad in terms of regulation of linguistic, pedagogical, technological and cultural affordances. The regulation of the online interaction is also a source of constant dilemma and deep questioning for the teacher-trainees.

7.2.3 Online interaction regulation dilemma for tutors

Three types of discursive manifestations of disturbances at the micro level moment-to-moment interaction emerged in the debriefings over the six-week period. These were disturbances related to tutor and tutee incomprehension during the online interactions (listed in Table 7.1). This can be attributed to the varying L2 competences of the tutees, especially the low L2 proficiency of some tutees who struggled to keep up with the speed of the online oral exchange. Moreover, the tutor regulation of linguistic, pedagogical, technological and cultural affordances as inexperienced trainee-teachers also played a part in these disturbances. These are summarized as three main points below:

1. Tutee incomprehension
2. Tutor incomprehension/ Inaccuracy in tutee response
3. Difficulty in rendering tutee productions more complex (no questions, blockage, tutees need more time)

Table 7.5 lists the categories that emerged following the annotation of online interaction breakdowns on Atlas.ti. In the online interactions documented in this corpus, a total of 343 occurrences of moment-to-moment interaction breakdowns were observed. Table 7.6, on the following page, lists the categories that emerged following the annotation of the online interaction breakdowns on ELAN.

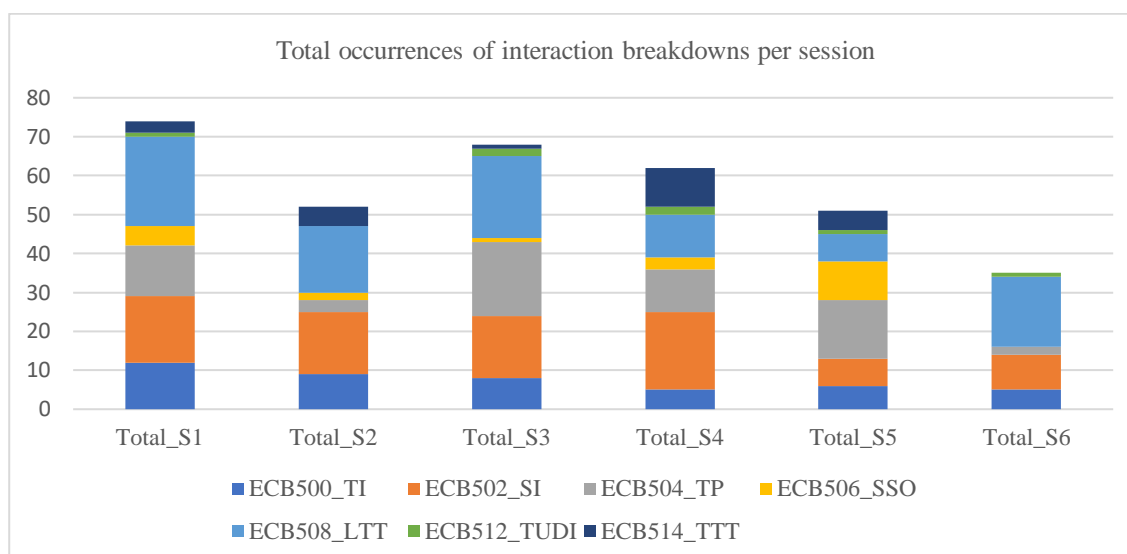
Table 7.5: Discursive manifestations (Debriefings) of moment-to-moment interaction breakdowns

| Sessions | Tutee Incomprehension % | Tutor Incomprehension % | Inaccurate response % |
|----------------|-------------------------|-------------------------|-----------------------|
| Sessions 1 & 2 | 18.75 | 20.00 | 83.33 |
| Session 3 | 12.50 | 20.00 | 16.67 |
| Session 4 | 12.50 | 20.00 | 0.00 |
| Session 5 | 50.00 | 20.00 | 0.00 |
| Session 6 | 6.25 | 20.00 | 0.00 |

Table 7.6: Types of breakdowns that emerge during the online interactions

| Codes/Annotations | Cause of interaction breakdowns |
|-------------------|---|
| ECB500_TI | Tutor incomprehension |
| ECB502_SI | Tutee incomprehension |
| ECB504_TP | Focus on technological problems |
| ECB506_SSO | Mismatch between VC interaction object & tutee needs |
| ECB508_LTT | Lack of time for tutee to think & express in L2/Lack of tutee competence to complexify spoken interaction |
| ECB512_TUDI | Tutor unable to dissipate tutee incomprehension |
| ECB514_TTT | Tutor talks too much and monopolises floor time |

Figure 7.4 gives the total number of occurrences of the aforementioned interaction breakdown episodes over the course of the six sessions. The corresponding table is in Appendix G-Table 1, (p. 308).

Figure 7.4: Total occurrences of interaction breakdowns per session for all triads

The first session encounters the highest occurrences of interaction constraints and breakdowns in the study's corpus. This decreases in session 2 only to rise back up in session 3, following which the online interaction breakdowns undergo a steady decline. The rise in session 3 is attributed to 'technical problems' (ECB504_TP). Apart from that, the most frequent interaction breakdowns are caused by 'tutee incomprehension' (ECB502_SI) and 'lack of time for tutee to think & express in L2/lack of tutee competence to complexify spoken interaction' (ECB508_LTT). ECB508_LTT reduces slightly in sessions 4 and 5 as compared to the other sessions and ECB502_SI is the

lowest in session 5. Contrary to this, ‘*mismatch between VC interaction object & macro module object*’ (ECB506_SSO) is the highest in session 5 while ‘*tutor talks too much and monopolises floor time*’ (ECB514_TTT) is the highest in session 4. ECB514_TTT is absent from session 6 based on a mock interview as mainly tutees speak. These observations make a comparative study of the complexity of tasks in sessions 4 and 5 with regard to the other sessions a compelling one.

Complexity in tasks introduced in sessions 4 and 5:

It has already been discussed in the previous chapter that sessions 4 and 5 introduced new mediational tools encouraging collaborative project-pitching involving negotiation between peers. However, the theme for session 4 (creating a kids’ b’day meal deal) was not appreciated by tutees (as reported by Pam_{TR}’s tutee) as they thought it did not address their needs or interests. Tutees seemed to appreciate session 5 more. It addressed another Business project-pitching task (food truck) although this time the tutees were encouraged to formulate questions as Business consultants and propose marketing strategies. Nevertheless, Table 7.5 shows that tutors’ perception of learner incomprehension reaches its peak in session 5. One of the tutors noted the following difficulty with regard to regulating session 5:

Excerpt 7.22: Debriefing post-session5

Tutor_Justine_{TR}: *Alors, moi, ça a moyennement fonctionné. [...] Parce qu’ils ont eu beaucoup de mal à, à comprendre, enfin... à poser des questions ! [...] Il dégageait pas d’idées [...] Après, j’ai eu l’impression de moi-même poser des questions.*

Tutor_Justine_{TR}: *So, it didn’t work great for me. [...] Because they had great difficulty in, in understanding, well... in asking questions! [...] they couldn’t come up with ideas [...] Later, I ended up framing the questions myself.*

An empirical investigation of the actual online activity/interactions revealed numerous instances of micro level interaction breakdowns. The type of interaction breakdowns that emerged for sessions 4 and 5 as compared to the other sessions for individual triads are shown in Figure 7.5, Figure 7.6, Figure 7.7 and Figure 7.8. Interaction breakdown episodes due to tutor incomprehension (ECB502_TI) and tutee incapacity to come up with articulate answers (ECB508_LTT) are the highest in Adele_{TR}’s and Emili_{TR}’s triads respectively. Both of these reduce in Adele_{TR}’s session 4 contrary to Emili_{TR} and Meliss_{TR} for whom an abnormal rise in tutor talk (ECB514_TTT) is noted. ECB514_TTT is quite high for Emili_{TR} across all sessions except the last one. Tutee incomprehension (ECB502_SI) is the highest for Emili_{TR} for all the sessions and Sami_{TR} for session 3 as the latter is the only session in the study’s corpus where Sami_{TR} interacts solely with the less proficient tutee (the more proficient tutee could not connect due to technical breakdown). ‘Mismatch between the VC interaction object and macro module

object' (ECB506_SSO) is mainly noted as a session 5 phenomenon although other sessions do host episodes of digression from the main module object too (data in Appendix F-Table 7, p. 309).

Figure 7.5: Total occurrences of interaction breakdowns per session for Adele's triad

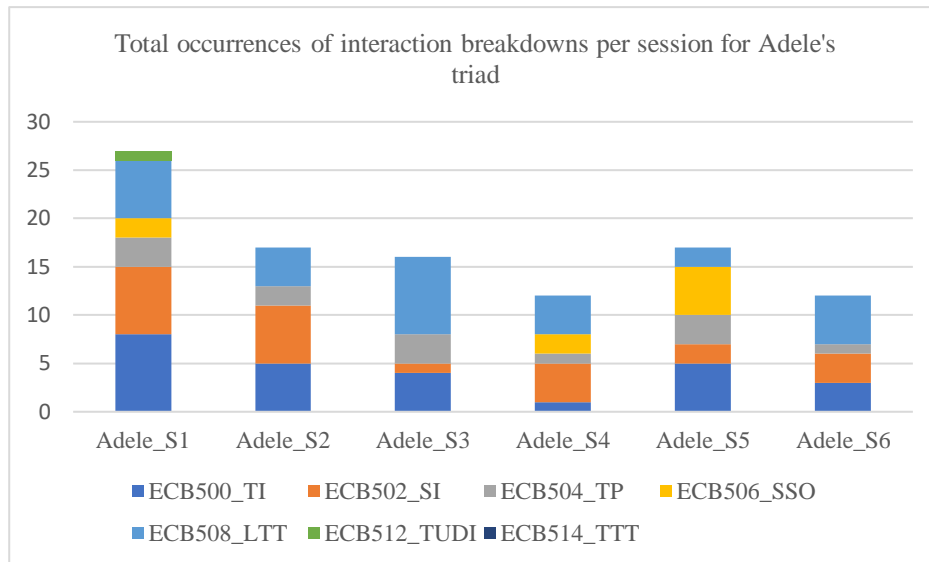


Figure 7.6: Total occurrences of interaction breakdowns per session for Emilie's triad

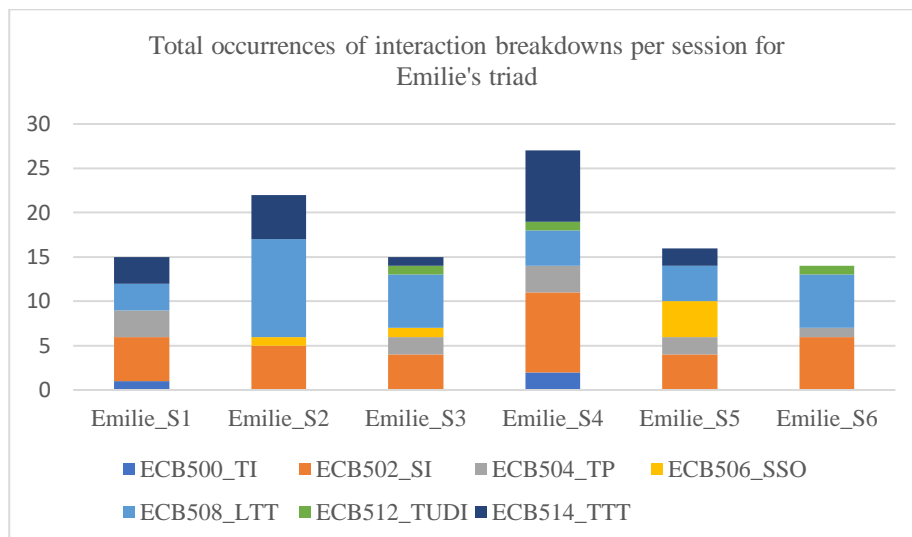
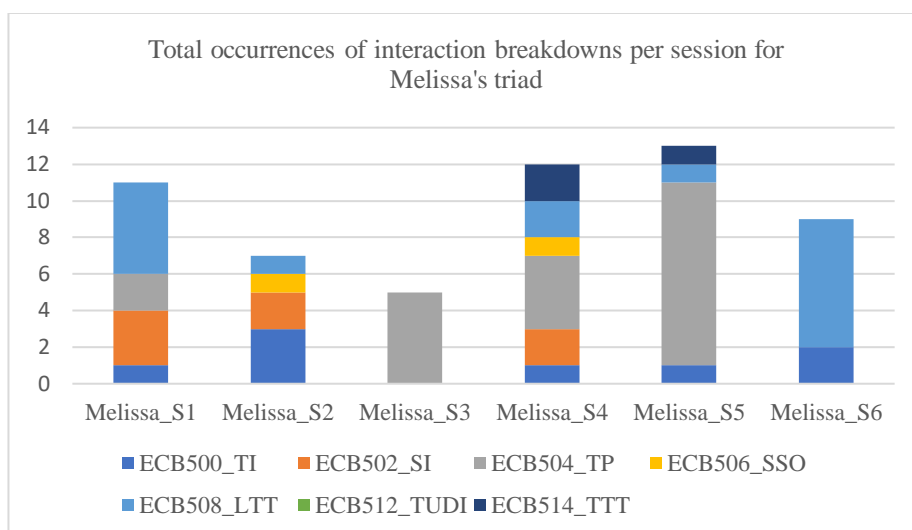
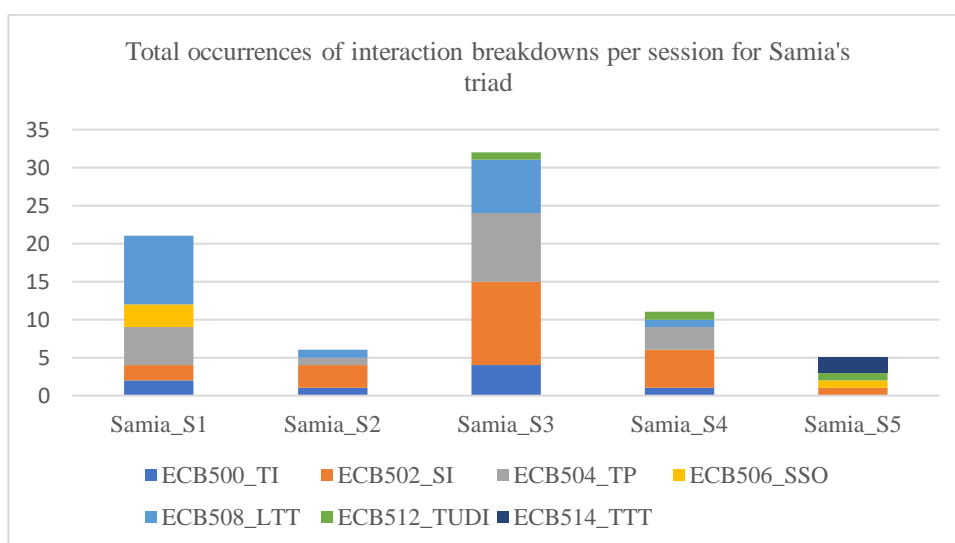


Figure 7.7: Total occurrences of interaction breakdowns per session for Melissa's triad**Figure 7.8: Total occurrences of interaction breakdowns per session for Samia's triad**

Even though tutees fumble and fail in session 5 and the session objects are not necessarily aligned with the main module object, these interaction disturbances afford an introduction to a more developed tool and the new object of expressing one's conceptual ideas in creative ways as already explicated in the Chapter 6, Excerpt 6.4 (p. 145). Aident_{TE} asserts in his online feedback that session 5 had been useful as it encouraged him to think.

Excerpt 7.23: Online-interaction Aident_{TE}_session 6

Aident_{TE}: « euh l'exercice euh comme euh les restaurants mobiles/ euh je le garderais car euh à mon avis c'était très très très utile\ car euh: euh je dois penser\ un petit peu euh m[ais les exercices] comme euh un

peu des images euh avec euh euh le chef euh je pense (.) que: (.) c'était euh un peu stupide ».

AidentE: "euh exercises euh like euh the mobile restaurant/ euh I would keep it because euh for me it was very very very useful\ because euh: euh I had to think\ a bit euh but the exercises like euh a some images euh with euh euh the boss euh I think (.) that: (.) it was euh a bit stupid."

AidentE's reference to "some images euh with... the boss euh I think (.) that: (.) it was euh a bit stupid" refers to the designed iconic document-based task in session 1. However, CatrionATE has a different opinion regarding these Business-related tasks introduced in sessions 4 and 5. With regard to session 5, CatrionATE notes that since AdeleTR did not do Business, it was difficult to discuss about Business with her (referring to session 5 where tutees were required to formulate questions as Business specialists). CatrionATE would have preferred a more main module-oriented interaction instead.

Excerpt 7.24: Post-interview CatrionATE

CatrionATE: « *mais pour moi c'était hum c'est plus hum... euh c'était plus important de avoir des fautes de langue, du vocabulaire, de prononciation et de grammaire. Euh, juste juste pour moi, mais euh parce que elle, elle ne fait pas de commerce, donc hum c'était c'était très bon de parler avec une Français... euh Française hum des choses euh par exemple les stages et trouver une stage, le CV[...]* »

CatrionATE: "but for me [...] it was more important to have language errors, vocabulary, pronunciation and grammar. Euh, just just for me, but euh because she [referring to AdeleTR], she does not do commerce, so hum it was it was very nice to speak to a French person [...] about things euh for example work experience and how to find work experience, the CV [...]."

Hence, CatrionATE attributed the difficulty she encountered in sustaining the interaction in sessions 4 and 5 to the Business specific themes of those sessions and the lack of tutor competence to regulate such interactions. CatrionATE stresses instead on the need to develop module related vocabulary and linguistic competence. However, a closer look at AdeleTR's fourth session revealed the introduction of Business-related vocabulary, such as, "l'équilibre", "les bénéfices", "les ventes", "l'investissement", "les chiffres d'affaire", "la recette". This module-relevant vocabulary was introduced at AlannahTE's initiative in the online interactions that CatrionATE ideally should have benefitted from too. It is unclear whether CatrionATE noticed these linguistic inputs or not as she claimed in Excerpt 7.20 that she did not pay attention to what AlannahTE said. CatrionATE seems to be expecting to acquire knowledge (new vocabulary, pronunciation, grammar) through the tutor's oral input and corrective feedback, while expressing a certain unease with themes and activities that she was not used to, notably sessions 4 and 5, and that consequently involved more cognitive effort. On the other hand, AlannahTE introduced the above lexical units

in a new pedagogical context under the tutor's scrutiny, thus, actively and agentively working on her own learning while Catriona_{TE} did not seem to benefit from this as she may have had trouble following Alanna_{TE}. This manifests how an apparently negative affordance for Catriona_{TE} was transformed into a positive one by Alanna_{TE} with the help of her agentive initiative.

Tutee inability to complexify oral productions:

The moment-to-moment interaction disturbances due to tutee and tutor incomprehension were considered as part and parcel of these online interactions and triads engaged in constant negotiation and co-construction of meaning to overcome them. Although tutor incomprehension remained stable over the sessions, a sudden rise in tutee incomprehension was perceived by tutors post session 5. Incomprehension and inaccuracy in tutee responses in the online interaction gave way to tutor dilemmas with regard to the regulation of the online interactions.

The tutor role in regulating the online interactions was linked with their professional development as online teacher-trainees. These dilemmas were the consequences (as a ripple effect) of the micro level interaction disturbances noted by tutors. Mainly tutor-centred, i.e. time/speech/tool mismanagement by tutor, and online vs offline vs minimum corrective feedback, these issues were inextricably linked with the tutee online behaviour as well. Ensuring that tutees get more reflection time in VC is a tutee-centred issue and it occupied the tutors' discursive reflections mainly from the fifth session onwards as the fifth session presented new challenges requiring tutees to engage in more cognitive effort. Time, speech and tool regulation are also linked with affording more reflection time in order to help develop 'complexification in tutee response' as one of the new objects of the VC interactions.

Screenshot 7.2 shows Catriona_{TE}'s helpless reaction when Alanna_{TE} tries to involve her in a debate regarding Business-related concepts in Session 5.

Screenshot 7.2: Adele_{TR} _S5_online_interaction

1 (19:22)



2 (19:23)



3 (19:28)



Catriona_{TE} in the first image of the Screenshot 7.2 has a panic-stricken expression as she is unexpectedly pulled into the interaction by Alanna_{TE}. She then hides her face behind her hands

expressing that she is completely lost saying, “I don’t know”. Both CatrionATE herself and AdeleTR laugh at her predicament. This interaction breakdown is generated due to the tutee’s inability to complexify the interaction as the Business concepts are not necessarily mastered by anybody in the triad.

As seen in Excerpt 7.25, taken from AdeleTR’s fifth online interaction. The aim was not to focus on the Business concept *per se* (specified by her in the interaction) but rather to encourage the tutees to draw inspiration from what they had learnt in their Business class and retransfer that knowledge in a different context using L2. There was, however, a misconception regarding what the tutees do in their Business class as they confirm not having done such project-pitching even in their L1 before. Nonetheless, where AlannahTE was very motivated to try out this new activity even insisting on continuing when AdeleTR proposes to stop, CatrionATE seemed marginalised as she found it difficult to come up with new ideas.

Excerpt 7.25: Online-interaction AdeleTR _S5

- AdèleTR :** (19 :08) *vous devez d'abord avoir un budget/*
- AlannahTE :** (19 :12) *ou- je pense que oui/ mais*
- AdèleTR :** (19 :15) *[et le marketin]g/ c'est après le l'étude
de marché/ normalement na[n/]*
- AlannahTE :** (19 :16) *catrion[a euh] [c]atriona qu'en penses-tu*
- AdèleTR :** (19 :22) *toi catriona qu'est ce que tu en penses*
- CatrionATE:** (19 :23) *euh oh: ((rire)) °"I don't know"° ((rire))*
- AdèleTR :** (19 :28) *((rire)) [((rire))]*
- CatrionATE :** (19 :29) *[((rire))]*
- AdèleTR :** (19 :08) *you first need a budget/*
- AlannahTE :** (19 :12) *or- I think so/ but*
- AdèleTR :** (19 :15) *[and marketin]g/ it comes after the the market
research/ normally n[o/]*
- AlannahTE :** (19 :16) *catrion[a euh] [c]atriona what do you think*
- AdèleTR :** (19 :22) *you catriona what do you think*
- CatrionATE:** (19 :23) *euh oh: ((laughter)) °"I don't know"° ((laughter))*
- AdèleTR :** (19 :28) *((laughter)) [((laughter))]*
- CatrionATE :** (19 :29) *[((laughter))]*

Hence, tutors innovate with the session design to meet the inter-systemic mismatches (FLE vs. FOS and question-answer format vs. peer collaboration format). However, these changes did not always have the desired outcome as it also depended on the tutees' agency and proficiency levels, thus resulting in interaction breakdowns for some tutees with low initiative. This mismatch in tutee competence and initiative within the same triad also gave way to interaction regulation dilemma for tutors who did not necessarily enact the designed affordances to facilitate the less competent tutee. For example, in order to help CatrionATE, AdeleTR could have made use of the text chat to note the words down as AlannaHE spoke and this could have benefitted both learners. However, this was not enacted (maybe not perceived) by AdeleTR. SamiaTR was the only tutor to have introduced the note-taking on text chat strategy that potentially afforded online recasts and reformulations, reviewing for asynchronous study, and most importantly, written aid to the less competent tutee who had trouble following the fast-paced (or interlanguage) oral interaction.

AlannaHE's interaction in AdeleTR's triad is a case in point where despite her highly anglicised accent and interlanguage hesitations, AlannaHE takes the risk to initiate new ideas. AlannaHE debates with her peer as well as her tutor. For example, she points out to AdeleTR the discrepancy between the tutor's CV shared by the latter asynchronously and what they learn in class in session 4. Furthermore, she informs the tutor of concepts in English that the tutor was unfamiliar with, for example, "a computer permit", "central district", and also explains Business concepts (e.g. *équilibre*) in session 4. Moreover, while her peer CatrionATE hides her face in desperation and panic when unable to answer AdeleTR's Business-related question. AlannaHE also challenges the order of events proposed by AdeleTR and argues based on her general knowledge and common sense in session 5 even though, like CatrionATE, she had not been exposed to such themes before. Based on these observations, this thesis contends that the individualised nature of these triadic interactions necessitates high tutee agency for the interactions to be successful. In fact, the higher the tutee agency and initiative, the more successful the interactions tend to be. Shy and low-proficiency tutees need extra preparation before facing the semi-individualised VC sessions.

7.3 Tool design level constraints

Constraints are defined in this study as the environment specific tensions that emerge as a consequence of two characteristic inherent features of the environment, namely, mediation via technology and mediation via distance. They emerge in the tutor and tutees' discursive reflections as constraining the online interactions. Tool design level constraints are those that are perceived in the light of the project level mismatches and the session/interaction level dilemmas. These are micro level drawbacks perceived at the technological tool design level. They inhibit some actions and sub-activities that are perceived to have the potential to circumvent the macro and meso level

mismatches, disruptions and dilemmas. In this study, this manifests as a tutor-centred VC platform that does not afford tutee agency; lacks asynchronous tools to facilitate online interaction; and abounds in technology breakdowns leading to technostress.

7.3.1 Technology breakdown

Technology constraint is defined in this study as a systemic disturbance that is inherent in the VC activity's mediation via technology. In this study, it greatly disrupts the tutor-tutee interactions at the micro moment-to-moment interaction level leading to tutors and tutees getting overly stressed and frustrated. The technical breakdowns in ISMAEL continued to plague the interactions right till the end. Consequently, this affected the dynamics of the tutor-tutee interactions. Excerpt 7.26 and Excerpt 7.27 illustrate this both from the tutor and tutee perspectives.

Excerpt 7.26: Debriefings post-session3

Emilie_{TR}: *Euh, moi, j'ai envoyé par mail, en fait. J'ai pas pu me connecter, me connecter sur Visu du week-end.*

Emilie_{TR}: Euh for me, I sent it by email. I couldn't connect, connect to Visu for the whole week-end.

Excerpt 7.27: Post-interview_Anate

Anate: *seulement les problèmes techniques c'était [le] seule chose que c'était mauvais pour moi, parce que j'ai pas pu regarder [tout] la séance et autre chose...*

Anate: only the technical problems it was [the] only thing that it was bad for me, because I couldn't watch the [whole] session and all...

The post-project feedback from tutees and responses to a survey questionnaire revealed that the tutees unanimously regretted the frequent technical breakdowns. The tutees' responses for negative points of these online classes revolved around the technical problems they had to face. Their responses expressed that the interaction “was stressful and connections were never great” or that “the technical problems were the most frustrating aspect of the classes”. Figure 7.4 (p. 204) illustrates that numerous technical breakdowns (ECB504_TP) plagued the online sessions over the period of 6 weeks and validates the participants' responses.

For tutees, VC afforded virtual immersion wherein they were confronted with their lack of oral proficiency in a “real” conversation situation in L2 with a native speaker. This represented an immersion experience for tutees imitating the interaction challenges they would have to face in France as part of their imminent study abroad programme. At the same time, this action-based

pedagogy through distance-mediation with L2 expert speakers exposed the tutees to an uncomfortable level of individualised attention and auto-evaluation unlikely to be found in an L2 oral classroom. Aiden presents his mixed emotions in Excerpt 7.28.

Excerpt 7.28: Voicethread Aiden_{TE}

Aiden_{TE}: *C'était très difficile avec les ordinateurs et les caméras car ce sont un [outil]... [J'apprenais] beaucoup ici, [j'apprenais] que mon niveau de français oral est [trop faible] et je devrais [-] très dur afin de [réaliser] mes ambitions. [Aussi], j'ai trouvé un ami et un [contacte] pour l'avenir.*

Aiden_{TE}: It was very difficult with computers and the camera as these are tools... I learnt a lot here, I learnt that my level of spoken French is too weak and I would have to work very hard to fulfil my ambitions. Also, I made a friend and a contact for the future.

Aiden_{TE} (low proficiency) notes in his Voicethread presentation that the VC interactions made him realise how low his level was in interactive French. Seante_{TE} (low proficiency) noted that it was extremely difficult for him to come up with new ideas on the spot as he struggled to manipulate the L2 and his ideas simultaneously. Catrionate_{TE} (good proficiency but lacking ideas) expressed that she felt extremely intimidated while interacting with her tutor due to her own lack of confidence. Hence, these were challenges perceived by the tutees regarding the VC-mediated interactions.

Virtual vs. face-to-face classroom constraint:

Online teaching was felt to be tangibly different from a direct contact with tutees for tutors, even for those who had experience videoconferencing, although none of the tutors had prior experience with online learning/teaching using videoconferencing.

Excerpt 7.29: Debriefing post-session2

Adèle_{TR}: *En fait, pour moi, il n'y a pas de comparaison entre le Visu et la classe, enfin... C'est deux choses différentes qui sont agréables.*

Pam_{TR}: *Ce n'est pas ces deux trucs, c'est le contact que je compare, en fait... [...]*

Séverine_{TR}: *Non, mais c'est juste... C'est une ambiance !*

Adèle_{TR}: In fact, for me, there isn't any comparison between Visu and the classroom, well... They are two different things that are pleasant.

Pam_{TR}: It's not the two environments, it's the contact that I am comparing... [...]

Séverine_{TR}: No, but it's just... It's an ambiance!

Adele_{TR} asserts in Excerpt 7.29 that despite having different characteristics and qualities, face-to-face and online interactions can both be pleasant. The phenomenon of “contact” and “ambiance” noted by tutees Pam_{TR} and Séverine_{TR}, on the other hand, expresses the loss of a certain materiality and real contact energy that humans are familiar with while they communicate directly. This is replaced by another type of materiality that immerses the participants in virtual contact and brings with it a range of complexities. Victor_{TR} notes in his dissertation that he had to overcome the “barrier effect” induced by the technology-mediation in order to get its maximum benefits.

Excerpt 7.30: MA Dissertation Victor_{TR}

Victor_{TR}: *J'ai dû aller au-delà de l'«effet de barrière» que provoque cette technologie pour tenter de soutirer le maximum de la situation donnée. Même si on ne se débarrasse jamais vraiment de cet effet, on finit par s'y habituer progressivement, on gesticule autrement, on apprend à rester silencieux deux ou trois secondes de plus pour voir si l'autre ajoutera quelque chose sans le couper.*

Victor_{TR}: I had to overcome the “barrier effect” that this technology triggers in order to extract a maximum from the given situation. Even though we never really gets rid of this effect, we end up getting used to it gradually, we gesticulate differently, we learn to remain silent for two or three extra seconds to see if the interlocutor will add something without interrupting.

Tutors perceived the online character of the learning environment as physically constraining if not completely disruptive. However, the emphasis on this aspect gradually declined after the first two sessions suggesting a certain growing familiarity with the materiality of the medium as the sessions progressed. However, even though tutors got used to Visu as a mediational means of communication, they noted a user-interface flaw in the platform’s design.

7.3.2 Lack of tutee agency afforded by Visu

In the course of their training, the Lyon-lecturer emphasised the online interaction’s aim to strike a balance between a traditional teacher-tutee pedagogical interaction and a semi-informal tutor-tutee conversation, calling it a “pedagogical conversation”. Tutors were reminded that their posture in these interactions were different from that of the tutees’ real teacher in Dublin. However, a few tutors question the coherence of the term “pedagogical conversation” in the debriefing sessions as they note that the setting is asymmetrical due to the very design of the VC platform which does not afford tutees the same action possibilities as the tutors, notably, the sharing of documents. Moreover, Visu afforded tutors the possibility to regulate the different controlling, sharing and navigational functionalities on the platforms while the tutees were set to behave as passive receptors.

Excerpt 7.31: Debriefing post-session4

PamTR: *Ben, moi, en fait il y a vraiment un truc qui me gêne c'est qu'on dit qu'on fait des conversations pédagogiques avec les étudiants alors qu'on partage pas les mêmes statuts et qu'ils peuvent pas (mot inaudible) autrement que par la parole. Alors qu'on sait qu'une conversation c'est pas que parler. Ils peuvent pas mettre de documents, ils peuvent rien, enfin, ils peuvent rien rajouter. Et, moi, c'est vraiment quelque chose qui me gêne. Et, du coup, je trouve que ça répond pas à nos objectifs. [...] c'est, du coup, ne pas leur donner les moyens de répondre à nos objectifs. C'est mon avis personnel ! Darina le partage aussi !*

PamTR: Well, I, there is really a thing that bothers me it's that we say that we are having pedagogical conversations with the tutees although we do not share the same status and they cannot (inaudible) other than talk. We know that a conversation is not just about talking. They cannot upload documents, they can't do anything, well, they can't add anything. And, this is really something that bothers me. And, so, I feel that our objectives are not met. [...] it is, like, not giving them the means to address our objectives. This is my personal opinion! Darina^{TE} thinks the same!

PamTR and her tutee Darina^{TE} (indirectly) note in the Excerpt 7.31 the lack of tutee agency in terms of sharing documents or controlling the onscreen spaces. Thus, the very design of Visu added to the asymmetry of the setting that encouraged a “push mode” for tutors and a “receptive mode” for tutees, as noted by the Dublin-lecturer as well in her post-interview. The asynchronous retrospective salon affording delayed multimodal feedback was also reserved for the tutors' use exclusively. It functioned unidirectionally as it did not afford tutees the possibility to revert back on the feedback. Tutors, therefore, solicited tutee feedback on the *bilan* during the online interactions. Moreover, the retrospective salon affording asynchronous reviewing of the online session was reserved for the exclusive use of the tutors too. Ana^{TE} and Angela^{TE}, two of the most proficient tutees of the corpus expressed in their post-project feedback that they had tried to consult the recordings and text chats from the online interactions respectively, in an asynchronous manner but had failed.

7.3.3 Technostress and immediacy in synchronous interactions

In her post-interview (Excerpt 7.32), Ana^{TE} notes that tutees felt the pressure to respond immediately in this environment as they were under the direct gaze of the tutor. The visual mode, therefore, communicated technostress and provoked the tutee to speak quickly rather than engage in deep reflective responses.

Excerpt 7.32: Post-interview Ana^{TE}

Ana^{TE}: *C'est trop facile de voir quand elle était en difficulté, par exemple quand elle avait demandé quelque chose, et Alejandra^{TE} ne [réponde] pas, et je ne [réponde] pas parce que je dois penser un petit peu, je peux voir dans son visage « merde, qu'est-ce que je fais*

maintenant, qu'est-ce que je dis ? » [...] j'essayais de penser plus rapidement pour avoir une réponse pour, parce que parfois les trois on était en silence pendant une minute, et elle « bon on passe à la question suivante ? » ((rires)).

AnaTE: It was too easy to see when she was in difficulty, for example when she asked something, and Alejandra couldn't reply, and I didn't reply because I needed time to think a bit, I can see in her face "shit, what do I do now, what do I say?" [...] I tried to think faster to come up with an answer, because sometimes all three of us were silent for a minute, and she "let's move on to the next question?" ((laughter)).

Excerpt 7.32 gives AnaTE's perspective on the fact that the trainee-teachers constantly felt the pressure to fill in the silence during the VC interactions. AnaTE being a proficient speaker did not have trouble coming up with a quick response. However, the less proficient tutees struggled to come up with a response and even suffered from complete blockages. This is validated by SeanTE, AlannaTE and CatrionaTE's accounts that echo the cognitive strain they go through while articulating orally in L2 as B2 level tutees. The learners translate from L1 to L2 at this stage rather than thinking/conceptualising directly in L2 in their heads.

Excerpt 7.33: Post-interview_ SeanTE

SeanTE: *au niveau de grammaire euh c'est plus facile de euh faire des bonnes choses grammaire [...] euh dans une expression écrite mais euh au niveau oral euh je dois euh penser au chaque mot c'est difficile de faire une [bon] conversation euh sans euh utiliser ma tête.*

SeanTE: For grammar euh it is easier to euh do the right things grammar [...] euh in a written expression but euh for oral euh I have to euh think about each word it is difficult to make a right conversation euh without using my head.

It was noted at the debriefings that B2 level tutees need more thinking time to process and execute their oral productions. The visual mode triggered technostress that pressed the learners to speak quickly rather than engage in deep reflective responses. An affordance that was perceived by some tutors was to take notes in the course of the interaction in order to alleviate the gaze pressure and allow tutees some room for reflection.

Excerpt 7.34: Debriefing post-session5

Lyon-lecturer: *Être tout de suite dans l'original, avoir des choses pertinentes à dire c'est, c'est pas évident [...]*

EtienneTR: *Moi, j'ai remarqué qu'à chaque fois qu'il y avait ce passage de prendre des notes c'était tout de suite plus intéressant après. C'est donc pas mal de ritualiser... Alors, ça prend du temps mais l'année prochaine, je pense, c'est quelque chose qu'il faudra encourager.*

Samia_{TR}: *Ouai, c'est vrai !*

Lyon-lecturer: Having great ideas, having relevant things to say, it's, it's not always easy [...]

Etienne_{TR}: I noticed that every time I started taking notes made things immediately more interesting right after. It would be a good idea to ritualise this... So, it takes time but next year, I think, it is something that should be encouraged.

Samia_{TR}: Yeah, that's true!

The Lyon-lecturer and tutors acknowledge, in Excerpt 7.34, the difficulty in coming up with quick responses especially for B2 level tutees. This is one of the negative affordances of the VC learning environment. Tutors suggested the strategy of taking notes while the tutee thinks in order to alleviate the visual technostress of the tutor gaze while at the same time affording learners more time to think. Therefore, the positive affordance of individualised attention is accompanied with the negative affordance of an up-close constant tutor gaze that the tutee is acutely conscious of. This is related to the notion of immediacy associated with this synchronous learning environment. The dilemma on how to extract thoughtful and more complex responses from tutees preoccupies the tutors. This is an unperceived affordance as not present in the design of Visu but afforded by more state-of-the-art VC tools, with parallel huddle or discussion rooms, a navigation and spatial affordance (N&SA). Anate also noted in her feedback in session 6 that provisions should be made to share the VC session themes beforehand with tutees as it was difficult to come up with ideas on the spot. This points to the need of more asynchronous information and communication affordances (I&CA) to facilitate the synchronous interactions. This was another unperceived affordance in the conceptual design of Visu.

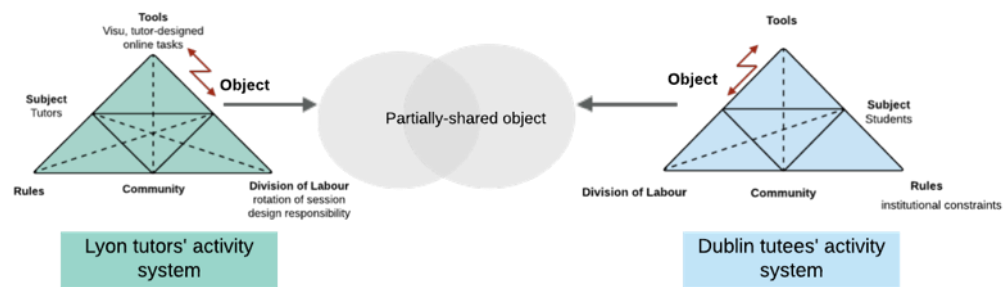
7.4 Discussion

The ISMAEL project design induced an action-reflection cycle that was instrumental in introducing transformative change in session designs. These changes were a result of the identification of systemic tensions that surfaced in the course of the online interactions. VC affords individualised tutoring through interaction with expert speakers of the language. However, these interactions do not take place in a vacuum and the interactants do not conduct themselves as free elements. The interactions take place not only between individuals but also between culturally and historically distinct institutional systems. The micro level moment-to-moment interactions are informed and motivated by macro level positive and negative affordances.

In the interacting activity system as unit of analysis in asymmetrical VC for L2 learning and teaching, each of the two systems comes with its own norms and rules, community and division of labour or the hidden base as represented by the CHAT triangle. It is crucial to understand and appreciate the needs and desires of the participating subjects both at the individual and institutional levels that are governed by the hidden base. Any arising tensions open windows for compromise or change to overcome these tensions. In the process, learning takes place as one becomes aware of the different action possibilities and their potential impact on learning.

In the context of this study, systemic mismatches were explored in between the Dublin and Lyon interacting activity systems as well as within the VC activity system. The identification of systemic mismatches and interactional breakdowns offer an insight into the negative affordances of the environment and identifying them also serve as windows to transformative change in praxis. Firstly, an inter-systemic mismatch arises between the conception and realisation of the VC activity's object as perceived by the different subjects. This mismatch manifests itself between *FOS*-oriented module objectives for Dublin and a *FLE* pedagogy followed by Lyon. In line with the tutees' profiles as Business students and their imminent study and work experience in France, tutees are proposed information exchange and intercultural exploration tasks on work rights and conditions in France and Ireland that follow a question-answer format with the tutor bringing in both cultural and linguistic input like in a traditional classroom setting.

Following feedback from the Dublin-lecturer, tutors try to align the following sessions with the main module and their questions revolve around tutees' past work experiences (even when they have no work experience) and their future projections with regard to their professional objectives. This induces an initiation-response-feedback (IRF) pattern of interaction that does not facilitate the 'conversation' aspect in the 'pedagogical conversation' they are advised to engage in by their lecturers. Triads end up having tutor-tutee dyadic interactions with the second tutee waiting for his or her turn to answer a question and to be validated by the tutor. This is understood as an intra-systemic mismatch between the VC activity's object and the interaction tools, i.e. the session designs and the VC platform. This is illustrated in Figure 7.9.

Figure 7.9: Inter-systemic mismatch between VC activity's object and tools

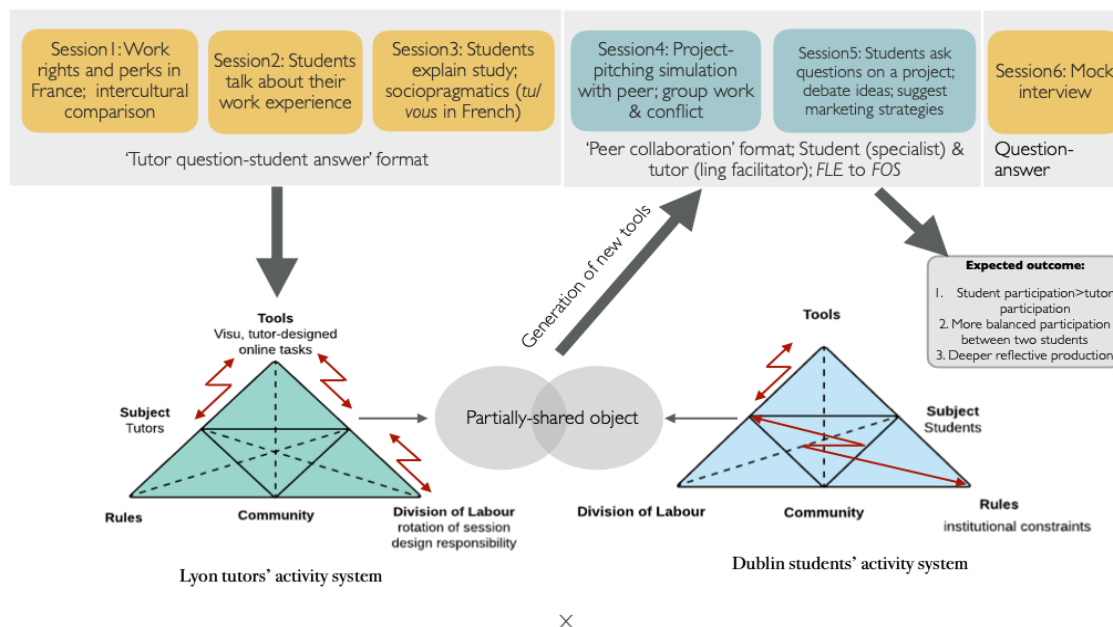
This mix of different expectations and messages creates a state of dilemma for tutors that is heightened by the lack of teaching experience in a distance and technology-mediated environment. Tutors encourage both social conversations and pedagogical/scripted interactions as they struggle to understand where to draw the line and what is expected of them. Finally, tutors engineer a new design format that focuses on integrating language use into Business Management and project-pitching themes wherein tutors act as linguistic scaffolders to help tutees express their ideas as subject specialists while engaging in peer collaboration and co-construction of a marketing deal or strategies, etc. This attempt meets with a mismatch between the object and the pedagogical tool proposed as tutees find it difficult and uninteresting from a learning perspective to interact with peers with low L2 proficiency. Moreover, contrary to the tutors' understanding of a Business school, the tutees had never engaged in such project-pitching activities before even in their L1. However, the project-pitching type of task requires greater tutee agency, critical thinking and creativity to apply Business concepts as a specialist to a new scenario. Furthermore, the tutors themselves do not master the Business concepts that the project-pitching designs involve. Consequently, the linguistic and pedagogical affordances of the session that enable the tutee to act as specialist is met with mixed feelings. While it is embraced as a new challenge by the more proficient tutees, the less proficient and shy ones do not seem to be prepared for it. The latter continue to expect knowledge input and instructional cues from the tutors in the traditional sense (while waiting to be attributed turns instead of taking initiatives). The need for more reflection time for tutees (especially the less proficient one) manifests itself in sessions 4 and 5. This thesis suggests that a flipped approach could help alleviate the apprehensions related to unknown pedagogical scenarios for tutees. A 'tutee-initiated flipped approach' rather than a tutor-initiated one, like in *MelissATR*'s triad, would help other triads in inducing activities that are more adapted to the tutees needs and would thus address the lack of clarity for tutors as perceived in this study. Additionally, it would also enable reflected responses instead of quick fix responses for the more proficient tutees and help alleviate frustrated abandoning for the less proficient tutees in this fast-paced learning environment.

Third generation CHAT (section 3.2.2, p. 55) can help to understand the manifestations of contradictions in an asymmetrical videoconferencing system. The division of labour (tutor, tutee, and their lecturers) in an activity not only creates different roles for the participants, but the latter also carry their own diverse histories and understandings of the VC interactions. Each activity system itself carries strands of history intertwined in its rules, conventions and artefacts. From this perspective, the identification of the systemic tensions becomes crucial as they are the entry points of transformative change in action possibilities or affordances in the environment when activity systems interact. The different types of systemic tensions explored in this chapter can be hierarchized into three levels:

- Distance and technology-related complexities constraining the macro level project;
- Meso-level mismatches between systems constraining the interactions;
- Micro-level interaction breakdowns and dilemmas with regard to interaction regulation/enactment of various action possibilities.

Tutors work on aligning the VC session designs with the main module objectives and learning outcomes in response to the interacting activity systems' partially-shared objects. This dynamic action-reflection-action process is illustrated in Figure 7.10. Tutors strive to come to terms with the dilemma regarding the new VC-tutoring context, that does not necessarily fall in line with their own historical understanding of learning and teaching. Tutees are seen as passive receptors partly due to the very nature of the tools' (Visu platform and session design) affordances. Motivated tutees work on actively participating in the online interactions and regularly consult their offline feedback.

Figure 7.10: Dynamics of systemic manifestations of contradictions



Explicitly authorizing learners (as shown in Excerpt 7.19, p. 200) to intervene to help the peer or overcome tutor incomprehension is beneficial. Hierarchical scaffolding or ideas emanated by one member of the triad could be developed by another member and so on. Triads with mixed proficiency learners faced the negative affordances of peer apathy where they either did not find it useful to interact with a peer or did not understand the peer's interlanguage or both. However, if the right type of scaffolding is offered, heterogenous pairs of tutees may prove to be more beneficial than homogeneous groups from a learning perspective, as such triads helped offer peer scaffolding along with tutor scaffolding.

Interaction breakdowns/disruptions at the micro level generated tensions between the nodes of the activity system. In general, these inter-nodal tensions were triggered by tutee or tutor incomprehension or inaccuracy in tutee production. Dilemmas generated in this process were related to the difficult choices that trainee-teachers are confronted with while engaging in regulating the moment-to-moment interactions. These choices are related to questions regarding their online behavioural choices that tutors grapple with as they develop their online tutoring competences. These choices in turn entail changes in neighbouring activities as well as preparation and reflection to address these dilemmas both for tutors and tutees to interact effectively via videoconferencing.

From a CHAT perspective, the introduction of a more developed object and its corresponding tools address these disruptions at the micro moment-to-moment interaction level. In this study, a number of more developed objects were introduced to harness creative peer-collaboration involving deeper reflection by tutees as Business specialists. Although, such new mediations stimulated the tutees, only those with high proficiency levels and higher agency showed openness to such tasks requiring high cognitive effort while those with moderate or low proficiency levels either followed in the footsteps of their more proficient peer or struggled to express their ideas. Although of significant importance, it is not just linguistic proficiency with right pronunciation that counts in such interactions. Equally important is the ability to express one's ideas freely. Some tutees suffer from lack of ideas or the lack of confidence to put their points across in L2. A tutee-initiated flipped approach encouraged by Melissa_{TR} proved to help the less confident speaker overcome her interaction/speaking blockage in Alejandra_{TE}'s case in session 6's mock interview.

7.5 Summary and Conclusion

This chapter gives an overview of the manifestations of systemic tensions at the macro project level, mismatches at the meso session inter-action level and breakdowns and dilemmas at the micro moment-to-moment interaction level as perceived by both Lyon and Dublin activity systems. The Lyon-lecturer and tutor voices were mapped against the Dublin-lecturer and tutee voices, thus, giving multivoiced accounts of the manifestations of contradictions in the interacting activity systems. Furthermore, the action-reflection cycle proposed by CHAT offers epistemological tools to understand and circumvent systemic tensions through transformative actions. This entails a renewed understanding of the institutional and cultural norms and rules that are inextricably connected with the complex notions of distance- and technology-mediation for asymmetrical VC for L2 learning and teaching.

Tutors tried to overcome the mismatch between macro module objectives and VC sessions by gradually introducing novel mediational pedagogical sessions/interaction tools. Tutors devised novel mediational means to circumvent the constraints, mismatches and dilemmas, namely:

- Mismatch between VC sessions and tutee macro module needs gives way to change from FLE to FOS;
- Asymmetry in triadic interactions and peer collaboration gives way to change from question-answer format to co-construction of ideas;
- Lack of deep reflective responses gives way to change from knowledge and experience-based questions to conceptualization of new ideas as Business specialists.

A taxonomy of systemic challenges, both at the macro and micro levels, which are specific to asymmetrical virtual exchanges via videoconferencing is, thus, proposed in this thesis. These are

- Systemic tensions (macro) due to lack of clarity regarding the partner system's norms and rules and division of labour;
- Systemic mismatches (meso) due to ill-adapted tools and instruction design derived from each system's cultural and historical understanding of the VC activity;
- Interactional breakdowns and dilemmas (micro) due to lack of pre and post-session reflection spaces and phases in the system's design.

The chapter ends with a discussion of guiding principles aiming to help designers of such learning environments to address some of the challenges that are characteristic of tutor-tutee VC interactions for learning and teacher training.

Chapter 8 Discussion and Conclusion

This thesis investigated the designed and emerging affordances of asymmetrical videoconferencing for L2 learning and teacher training from an activity theoretical perspective. A distinguished LETEC corpus was generated in the context of an asymmetrical VC project involving Master's students or teacher-trainees 'teaching French as a foreign language' from University of Lyon 2 and undergraduate Business students learning French as L2 from Dublin City University.

Rooted in the sociocultural paradigm of applied linguistics, this thesis viewed the cognitive activity of foreign language learning as a product of the individual's personal culture and agency intertwined and immersed in a macro instructional medium comprising inter-cultural, inter-historical and inter-social components that mediate learning. It attempted to understand the relation between the macro context and the sessions and the moment-to-moment interactions and how the physical mediational tools, institutional norms and division of labour negotiate with the psychological and physical constraints of the VC activity. Having identified the designed and emerging technological, pedagogical and linguistic affordances from a theoretically grounded understanding of such collaborative learning environments, this closing chapter discusses the empirical analysis of the data and findings with a view to address more precisely the study's research questions. It concludes by delineating its limitations and proposes ideas for future research, but first, a summary of the key points of the thesis is proposed.

8.1 Summary of the thesis

Chapter Two defined and described the principles of classroom pedagogical interaction and its extension into the VC-embedded environment and the CMC literature. A review of the literature on multimodality and asymmetrical VC for L2 learning and teacher training showed that mainly moment-to-moment level linguistic and paralinguistic interactions and session level designs and interactions have been analysed using mainly thematic, conversation and discourse analysis. Studies of tutor-tutee multimodal interactions as facilitated or constrained by tool design, session design and project design and the relationship between them in the VC learning environment are scarce. This called for an understanding of the perception-action relation between the user(s) and the environment or affordances.

Chapter Three reviewed the concept of affordances through the epistemological lens of a theoretical framework that allowed to view such complex learning environments holistically and hierarchically both at the individual and systemic interaction levels. CHAT epistemological tools of routinised operations, goal-oriented actions and need-motivated activity were proposed to deconstruct the principal VC activity and investigate the dynamic relationship between its component parts. The manifestations of tensions in activity viewed through multi-voiced accounts of the participants in the interacting activity systems as windows for change and learning were also defined. Finally, an affordance statement, derived from a user perspective in HCI was proposed to identify the designed and emerging affordances in this thesis's specific context.

Chapter Four presented the study's asymmetrical VC context as an educational and research project involving the creation of a LETEC corpus (ISMAEL). The detailed description of the ISMAEL project, the modelisation of the two activity systems in terms of CHAT epistemological tools and their relationship with other neighbouring activities in Chapter Four gave a preliminary exploratory insight into the project design and its component parts. The thesis's unit of analysis as interacting activity systems was presented and the boundaries of activities, actions and operations were delimited for analysis.

Chapter Five presented the operationalisation of CHAT to identify the designed and emerging affordances in the distinguished corpus of the study. A research methodology was conceived to identify the designed technological and linguistic affordances in the tool design and the session designs. A hierarchical annotation scheme was devised to identify different enactments of goal-directed actions, sub-actions and operations for different triads in the recordings of the online instantiations of the interactions. Furthermore, multi-voiced perceptions of the participants' reflections on their VC experience revealed positive and negative experiences. The episodes of interaction disruptions and breakdowns were triangulated with the negative perceptions in order to identify the manifestations of contradictions or negative affordances that emerged as a result of the interaction between the two systems.

Chapter Six implemented the affordance statement and identified the designed technological affordances in Visu and the designed socio-pedagogical and linguistic affordances in the weekly session designs. The actual instantiations of the designed affordances revealed new pedagogical, linguistic and multimodal enactments of affordances.

Chapter Seven presented the systemic manifestations of contradictions. The participants' accounts of their positive and negative experiences or challenges they encountered while enacting the designed project level, session level and moment-to-moment level interactions were

identified. These discursive manifestations of tensions were correlated with the online manifestations of interaction breakdowns. New action possibilities or affordances to circumvent the systemic tensions were also identified.

8.2 Aim of this study and results

It was noted in the literature review that complex learning environments mediated by technology and distance have redefined erstwhile theoretical understanding of L2 pedagogy (Bertin & Narcy-Combes, 2012). The creation of new learning scenarios with new spatial and temporal scales (Lemke, 2000) have called for ecological perspectives on language learning. This echoes a more holistic understanding of such learning environments as dynamic systems and a look into different possibilities for pedagogical design instead of just mirroring the face-to-face learning situations into the technology and culture-rich context. Recent research of asymmetrical VC for language learning and teacher training revealed a lack of theoretical underpinning in their understanding of affordances (Blin, 2016a). It was further posited that CALL studies tend to explore technology rich environments with epistemological tools that do not necessarily take into account the complexity of such environments (Blin, 2017). It was further argued that studies based on conversation analysis and discourse analysis present a partial picture of such complex discursive and interactional environments (Engeström, 1999), as explicated in section 4.1.2. This thesis attempts to fill in that gap by investigating the relationship between the technological tool design component, the pedagogical tool as project design and session design component, and the ensuing interaction design component that emerged. These components were investigated against the backdrop of individual agencies and institutional histories and cultures that in turn influence the technological and pedagogical design of the environment as well as the emerging affordances of the environment. It is within this context that the following three research questions were proposed:

Research Question 1: What are the designed technological, pedagogical and linguistic affordances in asymmetrical VC for L2 learning and teaching? What are the factors promoting or hindering their realisation?

Research Question 2: What new affordances emerge during tutor-learner and learner-learner interactions? What are the factors promoting or hindering their emergence and realisation?

Research Question 3: What are the implications of the emerging affordances in synchronous inter-institutional videoconferencing for technological and pedagogical design, and L2 learning and teacher training?

8.2.1 Question One

In response to the first question, this section will establish what the designed technological, linguistic and socio-pedagogical affordances were in the study's context and the factors that facilitated or hindered their enactment.

Three categories of designed technological affordances were formalised for asymmetrical VC platforms (for online L2 learning and teacher training). These are tool operation level affordances and are named as Information and Communication Affordances (I&CA) that allowed online connection and communication via audio, video and text in the pre-session, in-session and post-session phases; Traceability and Temporal Affordances (T&TA) that offered the means to record and review the interactions for instantaneous or asynchronous feedback as well as allow participants to reflect on the interactions; and Navigation and Spatial Affordances (N&SA) that facilitated moving around on-screen spaces and between the synchronous and retrospective spaces (section 6.1.2, p. 129). The combination of all the above technological affordances allowed to 'trace' (T&TA) the online recordings for 'retrospective' (N&SA) multimodal feedback using audio, video and text modes (I&CA). This adds on to Guichon, Bétrancourt and Prié's (2011) discussion on the traceability affordances designed in Visu to afford traces of recordings for asynchronous reflection for tutors. Reflection on one's own online interactions is considered by the conceptors of Visu as an educational affordance designed in the tool, crucial for tutor professional development.

The socio-pedagogical and linguistic enactments of the aforementioned technological affordances operational affordances gave way to complex socio-pedagogico-linguistic and technological affordances in this environment. While the designed technological affordances were fixed (hard to change in the course of the study), the designed pedagogical and linguistic affordances were flexible (as changeable on a weekly basis). Hence, the session designs were found to have both a designed and an emergent character. The emerging pedagogical and linguistic affordances in the session designs, facilitated by the action-reflection cycles in the tutor system, witnessed an evolution in solicitation of tutee participation from simple opinion-based responses to reasoned responses to more complex creative responses. Dejean & Sarré (2017) observe different types of interactions, such as dyadic or triadic, peer help, negotiation of meaning, collaborative construction, etc. present in the ISMAEL corpus, and focus on 'how' they are related to the 'engagement of learners'. This thesis, on the other hand, proposes a systemic view (micro-macro, dynamic and emergent) of the interactions as it traces the different types of tutor-tutee interactions (micro level) that emerged as a process of reflexive action (Engeström, 1999) (meso level debriefings) and an effort to overcome interaction breakdowns (Engeström & Sannino, 2011).

Instead of focusing on a phenomenon related to the mental state of the learner (micro), this study tries to understand the dynamics of the collective activity itself and also how that is picked up at an individual level (macro and micro). The designed educational affordance of reflexive action offers the tutors and tutees, a rich variety of interactional possibilities. These have been discussed in sections 6.1.3, p. 133 and 6.1.4, p. 134 of the thesis.

The text chat function was the most frequently enacted T&TA by tutors in the synchronous mode for the purpose of ‘co-construction of lexical and thematic explanations’ that in some cases afforded syntactical recasts for tutee productions (section 6.3.1, p. 156). The tutees’ enactment of T&TA was found to be the highest too among the three types of designed technological affordances. However, it was mainly used to overcome audio breakdown due to technical problems or tutor incomprehension. The I&CA was mainly enacted by tutors to share various semiotic resources (questions or instructions from session design, keywords, videos, images and FLE exercises) to facilitate the online interactions. The enactment of I&CA ranked second for tutors whereas their enactment of N&SA was the lowest. Unlike the tutors, N&SA enactments ranked second for tutees. This was attributed to the fact that tutees frequently consulted online dictionaries to look up words to facilitate their oral production in case of a lexical blockage during the online interactions. Their low enactment of I&CA was attributed to the fact that Visu did not allow sharing documents online for tutees. These emerging ‘synchronous’ multimodal affordances have been detailed in section 6.3 (p. 155) of the thesis.

Quite a few studies have already looked into the interplay of text chat with audio and video modes in synchronous CMC for interaction regulation both by tutors (Satar and Wigham, 2017) and tutees (Lee, Nakamura, & Sadler, 2018). This study identifies the interplay between text chat, viewed here as a traceable affordance, and other multimedia affordances designed in Visu. The markers and recordings (T&TA) of the online interactions were used by tutors for the creation of multimodal feedback (I&CA) in the retrospective salon (N&SA) that were asynchronously shared with the tutees, thus enacting all three designed affordances in the VC tool. However, the tool design did not allow tutees to review or reflect asynchronously on the online interactions, thus making it a tutor-centred design. The different modes used for asynchronous feedback revealed the multimodal use of audio for pronunciation mistakes and video to show tutees their productions, although most tutors heavily relied on textual explanations for feedback using video extracts of the online interactions to highlight the tutees’ erroneous parts and audio extracts to record their pronunciation. These emerging ‘asynchronous’ multimodal affordances were elaborated in section 6.4 (p. 164) of the thesis.

Moving on to the second part of the question regarding factors that facilitated or hindered the enactment of the designed affordances, two points are noted. Firstly, the constraints imposed by the tool design in terms of tutees not being able to share material in the pre-session phase or consult the recordings in the post-session phase were perceived as hindering the “pedagogical conversation” (Guichon, 2017) affordance of the ISMAEL project design. The concept of a pedagogical conversation was in line with a non-hierarchical informal kind of interaction between tutors and tutees. However, the tool affordances set a more tutor-controlled environment with unidirectional asynchronous I&CA. Secondly, tutee pairs in triads being more or less heterogeneous showed a certain disparity in terms of agency in their interactions with the tutor. Lack of tutee proficiency or confidence or a combination of both put some tutees in a more disadvantageous position in the high-paced triadic oral interactions.

The success or failure of the online interactions, identified as a recurring concept in the literature on social presence in online learning environments by Lowenthal (2010), caused the tutors, in this context, to make certain changes in the ensuing session designs. This was supported by the tutor activity system that followed an action-reflection cycle design. The designed pedagogical affordances changed from one session to the other giving the successive sessions’ pedagogico-linguistic affordances an emergent character. These weekly collective reflections on teaching praxis designed in the tutor system together with the feedback received from the tutee teacher allowed the tutors to perceive interaction breakdowns at micro and macro levels and come up with innovative measures in the design for teaching. This leads to the second research question.

8.2.2 Question Two

What new affordances emerged as the sessions unfolded and what promoted or hindered their realisation will be discussed in this section (full description in section 6.2, p. 139). The tutor-initiated pedagogico-linguistic affordances facilitated the interactions to move forward from simple and descriptive responses to reasoned responses and to more creative responses requiring tutees to act as specialists in their domain. This entailed a shift from a question-answer format to a collaborative project management/building format where tutees were encouraged to formulate questions and link their main module and Business knowledge to new contexts using L2, thus encouraging them to reflect critically, describe and apply what they learn as Business students using L2, even inform the tutors on Business concepts. Consequently, the tutors’ role changed from the linguistic expert to the linguistic scaffolder of tutees’ ideas. This researcher is aware of only one other tutee-led synchronous VC-based interaction (see van der Zwaard & Bannink, 2018) described in section 2.3.4. Tutors also solicited feedback from tutees on the asynchronous *bilan* they prepared in order to adapt them to their tutees’ needs. The socio-pedagogical affordances that emerged were the co-constructed social and intercultural interactions that were

based on both the tutees' and tutors' social and work life; asynchronous social interaction on Facebook as well as positive feedback to create a relaxed learning environment.

The tutees benefitted from the socio-pedagogico-linguistic affordances in diverse ways. VC-embedded pedagogy afforded direct interaction with expert speakers of L2 and facing if not overcoming a linguistically stressful real situation in preparation of their study abroad programme. It also allowed coming up with responses but more importantly, asking the tutor for help or offering help to peer; initiating friendly/humorous interactions with the tutor; working on temporary uptakes by reutilising tutor's corrective feedback, and introducing intercultural and thematic questions or explanations for the tutor or peer. Moreover, Chapter 7 posited that interculturality in such collaborations does not only manifest itself in the thematic choices for the session design but also in terms of the inter-institutional understanding of the other activity system's constraints (O'Dowd, 2005). These should be taken into consideration and both sides should be prepared to compromise where needed to deal with the inter-systemic mismatches in distant collaborations.

The division of labour in the interacting activity system with the tutors designing the session plans created different positions for the tutor and tutee interacting communities. The contradiction between the historical perspective of teaching FLE versus a videoconference-based pedagogy embedded within an L2 module for academic purposes for Business students (FOS) with tightly coupled learning objectives and institutional norms and rules generated a partially shared object. These generated diverse perspectives or voices that led to dilemmas in the tutor and tutee systems and within the triadic activity systems.

Furthermore, the role of the tutor as the interaction regulator is often evoked in the literature as discussed in section 2.3.4 (Dejean-Thircuir, Guichon, & Nicolaev, 2010; Nicolas Guichon & Drissi, 2008; Regine Hampel & Stickler, 2005). Within each triad, division of labour created dilemmas with regard to tutor-regulation of the session design and interactions (section 7.2.3, p. 203). One such negative affordance manifested as interaction breakdowns when peer collaboration was initiated in heterogeneous triads where one tutee had a significant difference in proficiency level as compared to his/her triadic peer. Such breakdowns were often observed to be the consequence of a lack of interest in discussing with peers. This was, however, innovatively transformed into peer help by some tutors and at the initiative of some tutees. Another negative affordance manifested as a mismatch between increasing task complexity and some tutees' low proficiency levels and shyness or lack of initiative.

The notion of distance mediation in such environments, is not just geographical, it also manifests as temporal, spatial, socio-cultural and psychological distances (Bertin & Narcy-Combes, 2012). The online interactions generated tensions and dilemmas for participants. These tensions and dilemmas were related to contradictions inherent in asymmetrical systems connected via distance and technology mediation. It was argued that the asymmetry between the two systems' norms, rules and objects created mismatches. The interaction hosted contradictions that emanated from a mismatch between the historical perspectives on teaching for tutors, from previous experience and the new partner institutions' norms, rules and needs. The participants carried their own diverse histories, and the activity system itself carried multiple layers and strands of history in its artefacts, rules and conventions. All this was not clear at the beginning of the project and was perceived by the tutor system as emanating from a lack of clarity regarding the tutee learning ecosystem. This lack of clarity for tutors may be interpreted as a macro level manifestation of the complexities and challenges of an asymmetrical inter-institutional collaboration via distance mediation. These points have been analysed in section 7.1 (p. 179). How these mismatches, interaction breakdowns and dilemmas could be overcome resulted in the generation of new conceptual tools to circumvent these manifestations of contradictions or negative affordances, as discussed in section 7.2 (p. 189). This further leads us to address the third research question.

8.2.3 Question Three

Question Three enquired what the implications of the study's findings are in L2 learning and teacher training. In view of the findings and in line with Blin & Jalkanen (2014), this thesis posits that project designers should focus on 'activity design' at the project, session and interaction design levels, as well as pay attention to 'technological tool design'. Furthermore, certain suggestions will be proposed here for future tutor training and tutee preparation.

This thesis posits that it is crucial to ensure alignment between macro tutee module needs and the VC session objects. It can be argued that an alignment of the VC session objectives to the tutees' main module objectives would help alleviate the stress especially in cases where institutional constraints are high and the participants work under significant time pressure. Tutees may also be encouraged to think of how to improve their interactions and demonstrate agency by taking initiatives during interactions. Currently, research in this domain focuses mainly on tutor semio-pedagogical competencies, as seen in section 2.3.4. In line with this view, tutees could be solicited to come prepared with questions for the tutors related to their main module or share them before the session asynchronously, consult their '*bilan*' regularly, and reflect on their oral participation and what could be improved after each session. This would imply greater task control and task ownership for tutees that, as seen in section 2.3.3, is deemed crucial for student-centred learning

in online collaborations (Kirschner et al., 2004). This requires rethinking the auxiliary activities that accompany the VC activity as part of the main module for tutees also and not just tutors.

The findings of the study revealed that at the project design phase, it is crucial to identify who the tutees are as well as accumulate some contextual information about them in order to understand their needs and expectations (section 7.1, p. 179). Hence, it is strongly recommended to acquire information on tutees with the help of an online questionnaire. The questions below give a broad overview of a few relevant issues that can be useful in other asymmetrical VC contexts too.

- What is the tutee's level of proficiency?
- What motivated the tutee to take part in the VC project?
- What is the tutee's professional or academic background (participant history)?
- What are the institutional needs or constraints that may directly or indirectly influence the VC interactions (e.g. time constraint, assessment and curriculum constraint)?
- How is the tutees' real space configured (seating arrangement, presence of others, size and shape of physical room)?

Moving on to the session and interaction design levels, this thesis argues, in line with the literature already present in this domain (Lamy and Hampel, 2007; Markee, 2015), that project designers and tutees should inform themselves regarding objectives, time and semiotic resources with a gradual build-up of complexity in task types from rehearsal to activation (Nunan, 2004) (see discussion in section 6.6, p.173). This would imply greater task control and task ownership for tutees that, as seen in section 2.3.3, is deemed crucial for student-centred learning in online collaborations (Kirschner et al., 2004).

Triadic interactions afford richer conversations than dyadic dialogues as demonstrated in Excerpt 6.2 (p. 145). However, they were challenging to put in place because of the session design and individual preferences and learner competencies. To alleviate tensions, tutees may be allowed to choose their own partners. If tutees find themselves in heterogenous groups, tutors could encourage a more mentoring role for the more proficient tutee with regard to the less proficient tutee. Such a scenario may not be free of risks of discouraging either of the two students. However, such risks of developing psychological distances may be even more acute when the communication becomes too laborious between the tutor and the less proficient tutee. New forms of interaction emerged in this thesis's distinguished corpus:

- From simple to descriptive to reasoned responses to debate/critical ideas to creative ideas (section 6.2.1, p. 140);
- From 'tutor as L2 specialist' to 'tutee as thematic specialist' (scaffolded by tutor) (section 6.2.3, p. 153);

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- From ‘tutor-tutee dialogues in triads’ to attempted ‘peer collaboration’ to ‘peer help’ (section 7.2.2, p. 195);
 - From ‘tutor-initiated flipped approach’ to ‘tutee-initiated flipped approach’ (section 7.4, p. 217).

The analysis of the designed pedagogico-linguistic affordances reflected a progressive complexification of session objects and task goals. Three types of educational and pedagogical affordances emerged for the tutors (section 6.2, p. 139), as tutors developed competences to design online interaction; regulate online interaction; and provide synchronous and asynchronous feedback.

Tutors developed competences to design online interactions in terms of ‘design for teaching’ that transformed into ‘design for learning’ as tutors gradually took into consideration the needs of the tutees and the tutee system rather than following a question-answer format that induced ‘teaching by telling’. Tutors also developed their choice of semiotic material to facilitate the ongoing interaction rather than imposing or adding on comprehension activities. Tutors also understood the importance of intra-session cohesion between sub-activities or tasks and inter-session progression of the learning object.

Tutors learnt to regulate online interaction by learning to formulate short clear instructions; abandoning the designed questions in favour of the unpredictable direction taken by the interaction; sharing their own lived experiences rather than just stating facts and figures for intercultural exchange; and using text chat to communicate synchronous corrective feedback as recasts or written reformulations of tutee productions to co-construct linguistic or thematic explanation in the interaction. Tutors also learnt to dose the different components of a pedagogical interaction, namely focus on form, inter-cultural content, social exchange and meta-interaction feedback advising tutees how to improve their online participation. In line with Develotte & Mangenot's (2010) assertion that the asynchronous space and the relevant sub-activities are just as important as the synchronous interaction, tutors also developed competences to provide asynchronous pedagogical support to tutees by attributing as much importance to the asynchronous space and the relevant sub-activities as the synchronous interaction (section 6.4, p. 164).

Pre-session preparation not only for tutors but also for tutees is suggested by sharing semiotic resources and key words to familiarise tutees with the session's theme and the relevant vocabulary. Similarly, post-session feedback was an important pedagogical aid that tutors learnt to create using the tool's multimodal functions. Tutees enjoyed positive feedback and it boosted

their confidence. However, motivated tutees expressed the need for rich critical feedback and the desire to listen to their online interactions. In view of these observations, a few suggestions for project design, activity design and tool design are proposed below.

Some suggestions are recapitulated below as a ‘semio-pedagogical Toolkit’ for project design, activity design and tool design for future asymmetrical VC instantiations. For teachers and project designers who wish to embark in telecollaboration, the importance of curriculum design and needs analysis is crucial. A clear understanding of and concertation on the learning objects, needs, expectations, institutional constraints, rules and division of labour of the partner establishment would help reach a compromise beforehand that would alleviate stress from the system. Depending on the tutees’ proficiency level, tasks may be designed to propose a progressive build up, from repetitive recycling format, building from simple opinion-based responses to reasoned responses and debating on lived or known contexts to complexification of responses by encouraging the formation of new concepts in hypothetical contexts. In terms of neighbouring complementary activity design, the weekly debriefings were lauded by tutors as formative moments of exchange between members of a community of practice. Time permitting, tutees could benefit from such post session reflections too. Individual VoiceThread reflections were added in Dublin’s following instantiations of the VC project. It would be interesting to see the benefits that a collective reflection might have for tutees. Furthermore, session design could encourage a tutee-initiated flipped approach as it facilitated the mock interview for MelissaTR’s triad. It is noted that at the B2 level, students need time to reflect on their own productions, longer scaffolding by tutors and more competent peers for comprehension. This could be facilitated if the main module’s curriculum objectives (FLE or FOS) are supported by VC as a reflection space where tutees take the initiative to share documents with tutors beforehand and critically reflect on what they have learned in the main module.

In terms of interaction regulation, triadic interactions supported by tutor scaffolding and peer help are recommended as they proved more beneficial for less proficient speakers rather than dyadic interactions. High proficiency learners also benefit from triadic interactions when asked to explain to the less proficient peer. It was even found that the less proficient speakers understood the peer’s explanations better than the tutor’s explanations sometimes due to the native accent and fast-paced locution. Hence, the more proficient tutee acted as a helpful mediating agent to balance out the asymmetrical proficiency levels of the tutor and less proficient tutee in triadic interactions. However, care must be taken to not have too huge a proficiency gap between tutees. Another means of tutor scaffolding is reformulating the tutee oral productions by writing on text chat. In this way, learners get some gaze-free thinking space that is necessary for reflective expression. The importance of silence was highly stressed by almost all tutors. However, if the tutors just

wait silently, it adds pressure on the tutees to speak quickly. Additionally, limiting tutor speech time to facilitate student speech time is also debatable as tutees learn by listening to the expert speaker too.

Tool conceptors could design more democratic VC platforms that facilitate tutee agency and autonomy for learning. It was noted that Visu was tutor-centred as in the pre- and post-session phases, tutees could not add documents nor could they consult the online interactions after the sessions or comment on their tutor's feedback directly online. In the same vein, tutors also remarked the lack of critical feedback from tutees. This could have been an authentic appreciation of their work and would add room for professional improvement. Another asynchronous communication to facilitate the synchronous interactions include preparing and sharing a linguistic and pedagogical toolkit specifying the session aims, themes and relevant vocabulary in the pre-session phase to help alleviate the fear of the unknown for some tutees, instil confidence and facilitate preparation for their online interaction not only in terms of active participation but also deep reflective ideas. The asynchronous space of the VC platform could have a dedicated section for this pre-session preparation. This possibility would address Aiden_{TE}'s position who noted in his VoiceThread reflection that he could come unprepared for the VC interactions as it was impossible to predict the topic of discussion.

8.3 Original contributions of this thesis

Research in the field of asymmetrical VC for L2 learning and teacher training has mainly looked at micro level multimodal interactions, isolated elements of linguistic phenomena, and tutor perspectives, thus, focusing on teacher training rather than treating the whole ecology of learning system as a unit of analysis. This thesis attempted to fill those gaps identified in the research literature and makes five main contributions in this regard as discussed below.

Firstly, unlike most studies in this domain that have focused mainly on tutor perspectives and teacher training, this thesis includes tutor, tutee and their lecturers' perspectives as well. It also offers a new way of looking at asymmetrical VC-embedded learning ecologies. Currently, the prevalent concepts used within the sociocultural paradigm to investigate instructional uses of conversation/classroom interaction for L2 education tend to largely focus on microanalyses of participant interactions and relations using conversation analysis or discourse analysis (Blin, 2017). Although of significant value, they do not offer an understanding of the dynamics between the micro and macro levels of interaction. Also, CA and DA focus on discourse but do not have the epistemological tools to relate discourse with activity, actions and operations at different levels (technological, pedagogical, linguistic and social). This study does not focus on an isolated

linguistic phenomenon but rather attempts to offer an ecological perspective of the dynamics of the interacting learning system as it undergoes change. Change in the activity is synonymous with new action possibilities or emerging affordances, which in turn implies learning and development at the collective and individual levels. How these mediating factors influence the human behaviour are established by looking at the already designed artefacts integrated in the environments as designed operational affordances (these are based on certain established understandings of user needs and objects) and the ensuing transformations of the artefacts and tools as users innovate new uses and/or face situated systemic disturbances and tensions. This understanding of transformational activity, missing in the asymmetrical VC literature, guides this thesis's methodological stance. It also premises the choice of the term 'interaction' as argued in the Introduction chapter.

Secondly, although the notion of affordances has been briefly brought up in studies based on this corpus and the literature on asymmetrical VC, its ontological and epistemological basis have not yet been formalised in the asymmetrical VC context. The literature review in Chapters 2 and 3 have highlighted the inconsistencies that have developed in the understanding of affordances in their application in HCI and more specifically in CALL (Blin, 2016a). This study seeks to address the gap in CALL educational research by formalising an affordance statement borrowed from Engineering Design for the evaluation of technology rich L2 learning environments as it has not been formalized in CALL yet. Furthermore, this thesis proposes a taxonomy of technological affordances for asymmetrical VC, namely I&CA, T&TA and N&SA that can be extended to the design of learning environments of other VC-mediated learning settings as well.

Thirdly, the thesis proposes an understanding of emerging linguistic, pedagogical and multimodal affordances that inform a 'semio-pedagogical toolkit' to help facilitate future instantiations of asymmetrical VC for L2 learning and teacher training. Changes are suggested to make the technological, pedagogical and interactional design format more tutee-centred. Unlike the literature focusing mainly on the tutor-regulated nature of the VC interactions, this study emphasizes the significant influence and even necessity of tutee-regulation in VC interactions. This calls for a transformation of the historical understanding of VC technological, pedagogical and interactional design by allowing tutees more access to different spaces on the VC platform for asynchronous reflection, introducing a tutee-initiated flipped approach to accord greater tutee control over the interactions, and adapting the interaction type (i.e. a question-answer format or negotiation of creative ideas) to the tutees' needs, while gradually building interactional complexity. This also entails addressing HCI design as the design of the VC platform itself is viewed as reinforcing or limiting the tutees' action possibilities for learning.

Fourthly, this thesis also proposes a taxonomy of systemic manifestations of contradictions that could be anticipated and thus circumvented without getting too stressed in such collaborations. These are induced by the complex notion of distance and technology mediations and the asymmetrical character of the VC collaboration. They are termed as ‘distance and technology-induced constraints’, ‘inter-systemic mismatches’ (of rules, assessments, culture) and ‘intra-systemic dilemmas’ related to interaction regulation, division of labour and intermediate learning objects.

Finally, this thesis’s biggest contribution is its methodology. Underpinned by the theoretical framework of activity theory and its hierarchical notion of activity, interacting activity systems, a dynamic object and the manifestations of systemic tensions, it offers a new way to investigate learning ecosystems with a significant multimodal component in a holistic manner. Individual activity does not only derive from collective activity, but collective activity also derives from individual agency with the help of collective action-reflection cycles. Thus, the focus is on the dynamic exchange between the micro and the macro levels of the inter-institutional interaction or the hidden part of the activity (represented by the base of Engeström’s (1987) CHAT triangle) that is normally not visible in the online interactions and has not been focused upon by most studies using the ISMAEL corpus. This thesis posits that new action possibilities either emerge naturally or in response to breakdowns and may be accompanied by innovative actions. This methodology can be emulated for future activity theory-based studies investigating more macro educational or social affordances in more macro level studies or inversely in more micro level studies.

A generalisation of such and such actions or perception of affordances for VC learning environments is not espoused in this thesis. The designed and emerging actions or affordances are a specificity of this context and it may not be possible or advisable to generalise or duplicate them in any other context. However, what this study does espouse is a working methodology for curriculum design, task creation, and notes the possibilities of pedagogical interaction and the inherent contradictions in such learning environments, as well as a methodology for the evaluation of affordances at the technological, pedagogical and socio-linguistic levels.

8.4 Limitations and challenges of this study

The main limitations and challenges of this study were related to working with LETEC data, transcribing and synthesising audio-visual data for transcription, and making some methodological choices to address its specific research questions.

Indeed, the rationale behind the creation of a LETEC corpus is guided by the principles of teamwork and co-sharing as described in section 4.3 (p. 80). However, working with secondary data sets also has a few disadvantages. The Debriefings and final tutor reports and tutee VoiceThreads in the ISMAEL data sets report on direct experience and as such contain a phenomenological stance since they were not guided by any particular research question. However, other data sets like the semi-structured interviews present an interpretative filter as the discourse reflects an inclination to serve a particular research agenda. The interviewees' reflections and responses are, consequently, coloured by the interviewer's interpretative filter. This bias in the secondary data made it challenging to objectively analyse such data sets with a specific research focus in mind. Furthermore, the data did not allow to identify the tutee dilemmas clearly as post-session reflective discussions or debriefings were not held in Dublin. Moreover, the semi-structured interviews of tutees did not directly address such questions.

To study a certain scenario (in this case pedagogical), the researcher should have some lived experience in a similar context in order to reconnect the elements, as suggested by Cole & Scribner (1981). I was not present during the online interactions and data collection in 2013-2014. The lack of lived experience in the context of the ISMAEL project posed an initial psychological hurdle. On the other hand, being an outsider to the creation of the corpus, a certain detachment necessary to conduct an unbiased investigation of the project's setting was facilitated. Nevertheless, I actively participated in subsequent instantiations of the pedagogical project for two consecutive years as a teaching assistant. This helped me to gain a lived experience of the pedagogical environment. However, during the actual instantiations of the VC project, I was assisting in Dublin and could not be in Lyon at the same time, hence, I engaged in regular forum discussions and Skype sessions with the tutors after each session. Furthermore, I regularly took field notes of discussions with the Dublin tutees and also interviewed the Lyon tutors during my research visits to Lyon to get as clear a picture as possible of the participants' experience with asymmetrical VC.

Furthermore, a multimodal corpus that is predominantly spoken is extremely time-consuming and intricate to create, edit, transcribe and annotate. For example, the transcription of a forty-minute-long online tutor-tutee (triadic) conversation following the ICOR convention (that I was not familiar with at the beginning) can take anywhere between thirty and forty hours for a novice transcriber with an average to slow typing speed. Like other researchers involved in the project, I have contributed to the ISMAEL corpus by editing, synchronizing, and transcribing a part of it. The collaborative aspect of the ISMAEL project's research dimension that afforded the creation of the ISMAEL corpus and open access to other data sets and transcriptions greatly facilitated this research endeavour.

The ISMAEL corpus does not have screen captures of either tutors' or tutees' screens from the online interactions. This greatly diminished the possibility to see their on-screen usage of I&CA and N&SA. The most obvious ones, that could be positively deduced from the verbal cues (when the participants spoke about using them) and visual cues, were therefore, the only ones retained for analysis. Due to this problem, T&TA, such as pinpointing student errors with markers and N&SA of participants' constant navigation on-screen space were not taken into consideration at all. The synchronous uses, such as the I&CA of sharing documents online, the T&TA of using text chat, and the N&SA of opening other tabs while simultaneously interacting on Visu were explored only. This leaves room for such parameters to be taken into account in future studies.

The micro-macro analysis presented some challenges with respect to maintaining a certain balance between the micro and macro weight of analysis. This study proposes a significant amount of fine-grained analysis of technological operations and actions that have a socio-pedagogical and socio-linguistic character for each of the three participants in each triadic interaction. These individual pedagogico-socio-linguistic actions and technological operations are the building blocks of the micro level moment-to-moment inter-actions between participants, which in turn populate the meso/weekly session level interactions. The macro/project level interactions encompass the micro actions and operations of all the 6 meso level sessions. To balance the weightage between the micro and macro view (Lemke, 2006) in this study, set against the backdrop of predominantly micro level studies in the field, a descriptive apparatus to get a higher level or more macro picture of the VC project was devised. This involves frames that are related to the issue of designed and emerging affordances but are outside the video, such as the session plans, weekly debriefings, weekly asynchronous multimodal feedback, post-project interviews of tutors, tutees and their respective teachers, text and image documents of the project design and individual module curriculums. From a methodological standpoint, the question I grappled with is where should one draw the line. Care had to be taken to not delve too deep into annotating the paralinguistic features, such as gaze, expressions and movement in the online interactions as that would make the analysis tilt too much in the micro direction. The annotation levels chosen on ELAN composed the essential features that needed to be analysed for the study of affordances, that is the subject-object and subject-subject interaction at the triadic and collective levels mediated by Visu, L2, norms, community and designed task. This generated a significant amount of micro level data. Nevertheless, this is essential from a macro level study perspective too as a macro perspective is composed of micro components.

From the perspective of the three research questions, each of them incorporates the micro and macro elements by proposing to look into the technological, socio-pedagogical and linguistic

action possibilities that were designed (Q1) in the interacting systems at the operational, actional and activity levels and those that emerged (Q2) in the course of the project instantiation. The final research question regarding emerging affordances for ‘L2 learning and teacher training’ (Q3) encompasses the micro-meso-macro levels of such asymmetrical VC environments too by suggesting recommendations both at the micro moment-to-moment interactional level as well as the macro pedagogical (curriculum) and socio-technological design levels.

From a structural perspective, the analysis has been spread out in two chapters, 6 and 7, in order to focus on the relation between the micro and meso levels (Chapter 6) first, and then the micro meso and macro levels (Chapter 7). This distribution seems ineluctable in a study looking at the micro-macro relation as the macro level is made up of micro level components. An analysis of the micro-macro relation is achieved by zooming out from the micro to get a bigger picture.

8.5 Future research perspectives

This study’s philosophical and methodological basis could be investigated further by applying them in other asymmetrical VC contexts. Unlike the literature review in Chapter 2 that suggests that VC-mediated pedagogy is mainly tutor-regulated, the emerging affordances in this study supported a shift towards increased tutee-regulation. However, this learner-centred pedagogy cannot be attained effortlessly and requires higher tutee agency. Just like the tutors, the tutees’ conception of learning and teaching is influenced by their past experiences of learning and teaching. To change this, tutees have to be encouraged to show more agency and take more initiatives while interacting with tutors. Furthermore, tutees may not be aware of their own learning needs. This is where the main module’s pedagogical design could aid the VC sessions by intervening to guide tutees in their pursuit of autonomy in learning. This calls for further research and investigation to explore the recommendations suggested in this study, namely, exploring the manifestations of contradictions in asymmetrical VC settings that afford higher tutee-centred technological and pedagogical design. Additionally, future research could investigate the hypothesis that a more democratic tool design and design for teaching would, in fact, entail greater learner agency in the design for learning. Moreover, a tutee-initiated flipped approach could be introduced in order to explore how more democratic technological and pedagogical designs are dealt with by learners with different levels of competencies and agencies.

Theoretical perspectives of language socialization, sociocultural theory and activity theory open the theoretical lens to encompass the learner in context, thus making space for relevant factors such as learners’ agency and identity, which affect opportunities for learning. This perspective could take this study’s findings forward and apply it in the context of future instantiations, in

order to investigate how designers, developers and educational users conceptualise affordances in tutee-centred scenarios in asymmetrical VC and to what effect.

Finally, due to the data constraints related to a corpus-based study, the study has limited itself to the contextual level of the curriculum and learning objectives. Future studies could look into more macro levels, such as policy constraints and tensions at the institutional and national levels and how that affects the VC interactions and vice-versa.

8.6 Conclusion

Transformative change takes place both in terms of the subject's action and perception in learning. The creation of new mediational tools, such as "creative" session plans (as posited by the tutor lecturer) attempted to facilitate learner collaboration, laying emphasis on themes that attributed a new role to the tutees as subject specialists and tutors as linguistic facilitators rather than L2 specialists. This echoes Vygotsky's (1978) conception of activity as a process of internalisation (internal conceptualisation of external cultural artefacts) through perception and externalisation (creation of artefacts that make it possible to transform culture) through action. This idea bears a direct relation with the key concept under scrutiny in this study, that of emerging affordances. Thus, the emergence of affordances, be it a product of serendipitous spontaneity or deep reflective thought, represent transformative change in this study, provided the developing person's view of the situation expands. This echoes the writer Leo Buscaglia's words, "Change is the end result of all true learning".

References

- Akiyama, Y., & Cunningham, D. (2018). Synthesizing the practice of SCMC-based telecollaboration: A scoping review. *Calico Journal*, 35(1), 49–76. <https://doi.org/10.1558/cj.33156>
- Albrechtsen, H., Andersen, H. H. K., Bødker, S., & Pejtersen, a. M. (2001). *Affordances in Activity Theory and Cognitive Systems Engineering. Learning* (Vol. 1287).
- Aljaafreh, A., & Lantolf, J. P. (1994). Negative Feedback as Regulation and Second Language Learning in the Zone of Proximal Development. *The Modern Language Journal*, 78(4), 465–483. <https://doi.org/10.1111/j.1540-4781.1994.tb02064.x>
- Amirian, S. (2003). Pedagogy & Videoconferencing: A Review of Recent Literature. In *First NJEDGE.NET Conference*. Plainsboro, NJ.
- Antoniadou, V. (2011). Using Activity Theory to understand the contradictions in an online transatlantic collaboration between student-teachers of English as a Foreign Language. *ReCALL*, 23(3), 233–251.
- Azaoui, B. (2017). Faire face aux imprévus techniques. In N. Guichon & M. Tellier (Eds.), *Enseigner l'oral en ligne : une approche multimodale*. Paris: Les Editions Didier.
- Baerentsen, K. B., & Trettvik, J. (2002). An activity theory approach to affordance. In *Proceedings of the second Nordic conference on human-computer interaction* (pp. 51–60). New York: Association for Computing Machinery.
- Baker, P. (2006). *Using Corpora in Discourse Analysis*. London and New York: Continuum.
- Bakhtin, M. M. (1981). *The Dialogic Imagination: Four Essays by M. M. Bakhtin*. Austin: University of Texas Press.
- Bakhtin, M. M. (1987). *Speech Genres and Other Late Essays*. Austin: University of Texas Press.
- Beauvois, M. (1998). Conversations in slow motion: Computer-mediated communication in the foreign language classroom. *Canadian Modern Language Review*, 54(2), 198–217.
- Belz, J. A. (2003). Linguistic Perspectives on the Development of Intercultural Competence in Telecollaboration. *Language Learning and Technology*, 6(2), 68–99.
- Belz, J. A., & Thorne, S. L. (2006). *Internet-mediated intercultural foreign language education*. Boston, Mass. : Thomson, Heinle.
- Belz, J., & Kinginger, C. (2002). The cross-linguistic development of address form use in telecollaborative language learning: Two case studies. *Canadian Modern Language Review*, 59(2), 189–214.
- Berge, Z. L. (1999). Interaction in post-secondary web-based learning. *EDUCATIONAL TECHNOLOGY-SADDLE BROOK NJ-*, 39, 5–11.
- Bertin, J. C., & Narcy-Combes, J. P. (2012). Tutoring at a distance: modelling as a tool to control

- chaos. *Computer Assisted Language Learning*, 25(2), 111–127.
- Bétrancourt, M., Guichon, N., & Prié, Y. (2011). Assessing the use of a Trace-Based Synchronous Tool for distant language tutoring. In *Computer-Supported Collaborative Learning* (Vol. 1, pp. 478–485). Hong Kong. Retrieved from <https://hal.archives-ouvertes.fr/hal-00806428>
- Billig, M., Condor, S., Edwards, D., Gane, M., Middleton, D., & Radley, A. (1988). *Ideological Dilemmas: A social psychology of everyday thinking*. CA, USA: Sage Publications.
- Blackboard. (2019). Retrieved April 1, 2019, from <https://www.blackboard.com/teaching-learning/collaboration-web-conferencing/blackboard-collaborate>
- Blake, R. (2000). Computer mediated communication: A window on L2 Spanish interlanguage. *Language Learning & Technology*, 4(1), 111–125.
- Blin, F. (2005). *CALL and the development of learner autonomy: an activity theoretical study*. Institute of Educational Technology, The Open University.
- Blin, F. (2016a). The theory of affordances. In Catherine Caws & M. Hamel (Eds.), *Language-Learner Computer Interactions : Theory, methodology and CALL applications*. Amsterdam; Philadelphia: John Benjamins Publishing.
- Blin, F. (2016b). Towards an “ecological” CALL theory. In *The Routledge Handbook of Language Learning and Technology* (Routledge, pp. 39–54). Abingdon.
- Blin, F. (2017). Conclusion Générale. In N. Guichon & M. Tellier (Eds.), *Enseigner l’oral en ligne : une approche multimodale*. Paris: Les Editions Didier.
- Blin, F., & Jalkanen, J. (2014). Designing for Language Learning: Agency and languaging in hybrid environments. *Apples – Journal of Applied Language Studies*, 8(1), 147–170. Retrieved from <http://apples.jyu.fi/ArticleFile/download/433>
- Blin, F., Nocchi, S., & Fowley, C. (2013). Mondes virtuels et apprentissage des langues: Vers un cadre théorique émergent. *Recherches et Applications*, (54), 94–107.
- Blunden, A. (2010). *An Interdisciplinary Theory of Activity*. Leiden, Boston: BRILL.
- Blunden, A. (2015). Leontyev’s Activity Theory and Social Theory. Retrieved April 9, 2018, from <https://www.ethicalpolitics.org/ablunden/pdfs/Leontyev and Social Theory.pdf>
- Bødker, S., & Andersen, B. (2005). Complex mediation. *Human-Computer Interaction*, 20(4), 353–402.
- Bødker, S., & Klokmoose, C. N. (2011). The human-artifact model: An activity theoretical approach to artifact ecologies. *Human-Computer Interaction*, 26(4), 315–371.
- Bonderup Dohn, N. (2009). Affordances revisited: Articulating a Merleau-Pontian view. *International Journal of Computer-Supported Collaborative Learning*, 4(2), 151–170.
- Bradshaw, D., Siko, K., Hoffman, W., Talvitie-Siple, J., Fine, B., Carano, K., ... Berson, M. (2006). The Use of Videoconferencing as a Medium for Collaboration of Experiences and Dialogue Among Graduate Students: A Case Study from Two Southeastern Universities. In *Proceedings of Society for Information Technology and Teacher Education International*

- Conference 2006* (pp. 262–267). Chesapeake, VA.
- Breen, M. P. (1996). Constructions of the learner in second language acquisition research. *Georgetown University Round Table on Languages and Linguistics, 1996*, 84–107.
- Bronfenbrenner, U. (1979). *The Ecology of Human Development: Experiments by Nature and Design*. Cambridge, MA: Harvard University Press.
- Byram, M. (1997). *Teaching and assessing intercultural communicative competence*. Multilingual Matters.
- Cadet, L., & Cicurel, F. (2017). Réfléchir les pratiques enseignantes - de l'analyse des interactions didactiques à l'analyse des discours sur les pratiques. In N. Guichon & M. Tellier (Eds.), *Enseigner l'oral en ligne : une approche multimodale*. Paris: Les Editions Didier.
- Caws, C., & Hamel, M.-J. (2016). Cutting-edge theories and techniques for LCI in the context of CALL. In C. Caws & M.-J. Hamel (Eds.), *Language-Learner Computer Interactions: Theory, methodology and CALL applications*. Amsterdam; Philadelphia: John Benjamins Publishing.
- Chanier, T., & Ciekanski, M. (2010). Utilité du partage des corpus pour l'analyse des interactions en ligne en situation d'apprentissage: un exemple d'approche méthodologique autour d'une base de corpus d'apprentissage. *Alsic. Apprentissage Des Langues et Systèmes d'Information et de Communication, 13*.
- Chanier, T., & Wigham, C. (2016). A scientific methodology for researching CALL interaction data. In C. Caws & M.-J. Hamel (Eds.), *Language-Learner Computer Interactions : Theory, methodology and CALL applications* (pp. 215–240). Amsterdam; Philadelphia: John Benjamins Publishing.
- Chapelle, C. A. (2003). *English language learning and technology: Lectures on applied linguistics in the age of information and communication technology* (Vol. 7). John Benjamins Publishing.
- Cisco Webex. (2019). Retrieved April 1, 2019, from <https://help.webex.com/en-us/WBX26731/What-is-the-Maximum-Number-of-Participants-in-a-Webex-Session-or-Call>
- Cobb, P., Stephan, M., McClain, K., & Gravemeijer, K. (2001). Participating in Classroom Mathematical Practices. *The Journal of the Learning Sciences, (10)*, 113–163.
- Codreanu, T., & Develotte, C. (2010). Enseigner par visioconférence poste à poste: cadre méthodologique pour l'analyse de pratiques tutorales. *M. Sidir et Al*, 49–59.
- Cohen, C. (2017). Former à l'enseignement en ligne. In N. Guichon & M. Tellier (Eds.), *Enseigner l'oral en ligne : une approche multimodale*. Paris: Les Editions Didier.
- Cole, M. (1988). Cole-1988-Cross-cultural-research-socio-historical-tradition.pdf. *Human Development, 31(3)*, 137–157.
- Cole, M., & Scribner, S. (1981). *The psychology of literacy*. Cambridge, Massachusetts: Harvard

- University Press. <https://doi.org/10.1017/S0047404500010101>
- Colpaert, J. (2006). Pedagogy-driven Design for Online Language Teaching and Learning. *CALICO Journal*, 23(3), 477–497. <https://doi.org/10.1558/cj.v23i3.477-497>
- Conole, G., & Dyke, M. (2004). What are the affordances of information and communication technologies? *ALT-J*, 12(2), 113–124.
- Cormier, P., Olewnik, A., & Lewis, K. (2014). Towards a formalization of affordance modelling for engineering design. *Research in Engineering Design*, 25, 259–277. <https://doi.org/10.1007/s00163-014-0179-3>
- Coughlan, P., & Duff, P. A. (1994). Same task, different activities: Analysis of a SLA task from an Activity Theory perspective. *Vygotskian Approaches to Second Language Research*, 173–193.
- Coventry, L. (1995). *Video conferencing in higher education*. Support Initiative for Multimedia Applications.
- Creese, A., Martin, P., & Hornberg, N. H. (2008). Introduction to volume 9: Language Ecology. *Encyclopedia of Language and Education*, 9: Ecology, i–iv.
- Dahlberg, G. M., & Bagga-Gupta, S. (2015). Learning on-the-go in institutional telecollaboration: Anthropological perspectives on the boundaries of digital spaces. *Researching Language Learner Interactions Online: From Social Media to MOOCs*, 259.
- Dalgarno, B., & Lee, M. J. W. (2010). What are the learning affordances of 3-D virtual environments? *British Journal of Educational Technology*, 41(1), 10–32.
- Darhower, M. A. (2008). The role of linguistic affordances in telecollaborative chat. *Calico Journal*, 26(1), 48–69.
- Davydov, V. V. (1988). Problems of Developmental Teaching. *Soviet Education*, 30(9), 3–83.
- Davydov, V. V. (1999). The content and unsolved problems of activity theory. In Y. Engeström, R. Miettinen, & R.-L. Punamäki (Eds.), *Perspectives on Activity Theory*. Cambridge: Cambridge University Press.
- Day, R. R. (1984). Student participation in the ESL classroom or some imperfections in practice. *Language Learning*, 34(3), 69–98.
- De Haan, J., Reed, W. M., & Kuwada, K. (2010). The effect of interactivity with a music video game on second language vocabulary recall. *Language Learning & Technology*, 74(2), 74–94.
- Dejean-Thircuir, C., Guichon, N., & Nicolaev, V. (2010). Compétences interactionnelles des tuteurs dans des échanges vidéographiques synchrones. *Distances et Savoirs*, 8(3), 377–393. <https://doi.org/10.3166/ds.8.377-393>
- Dejean, C., & Sarré, C. (2017). Favoriser l'engagement ininteractionnel des apprenants dans les échanges synchrones. In N. Guichon & M. Tellier (Eds.), *Enseigner l'oral en ligne : une approche multimodale*. Paris: Les Editions Didier.

- Develotte, C. (2008). Approche de l'autonomie dans un dispositif en ligne: le cas du dispositif le français en (première) ligne. *Revue Japonaise de Didactique Du Français*, 3(1), 37–56.
- Develotte, C., Guichon, N., & Kern, R. (2008). "Allo Berkeley"? Ici Lyon... Vous nous voyez bien"? Étude d'un dispositif de formation en ligne synchrone franco-américain à travers les discours de ses usagers. *Alsic*, 11(2), 129–156. <https://doi.org/10.4000/alsic.892>
- Develotte, C., Guichon, N., & Vincent, C. (2010). The use of the webcam for teaching a foreign language in a desktop videoconferencing environment. *ReCALL*, 22(3), 293–312. <https://doi.org/10.1017/S0958344010000170>
- Develotte, Christine, & Mangenot, F. (2010). Former aux tutorats synchrone et asynchrone en langues. *Distances et Savoirs*, 8(3), 345–359. <https://doi.org/10.3166/ds.8.345-359>
- Donato, R. (2000). Sociocultural contributions to understanding the foreign and second language classrooms. *Sociocultural Theory and Second Language Learning*, 2750, 27–50.
- Dooly, M. (2011). Divergent perceptions of telcollaborative language learning tasks: Task-as-workplan vs. task-as-process. *Language Learning & Technology*, 15(2), 69–91.
- Dooly, M., & O'Dowd, R. (2012). Researching Online Interaction and Exchange in FL Education: Introduction to the Volume. In R. O'Dowd & M. Dooly (Eds.), *Researching Online Foreign Language Interaction and Exchange: Theories, Methods and Challenges* (pp. 7–37). Bern: Oxford: Peter Lang.
- Dörnyei, Z. (2001). *Motivational Strategies in the Language Classroom*. Cambridge University Press.
- Dotov, D., Nie, L., & de Wit, M. (2012). Understanding affordances: history and contemporary development of Gibson's central concept. *AVANT*, 3(2), 28–39. Retrieved from www.avant.edu.pl/en
- Doughty, C., & Williams, J. (1998). *Focus on Form in Classroom Second Language Acquisition*. *The Cambridge Applied Linguistics Series*. ERIC.
- Drissi, S. (2009). Adaptation pédagogique de tuteurs en formation aux contraintes d'un environnement vidéographique synchrone. In *EPAL-Echanger Pour Apprendre en Ligne*.
- Duthoit, E., & Colòn de Carvajal, I. (2017). Solliciter et apporter de l'aide. In N. Guichon & M. Tellier (Eds.), *Enseigner l'oral en ligne : une approche multimodale*. Paris: Les Editions Didier.
- Ellis, R. (Ed.). (1991). *Second Language Acquisition and second language pedagogy*. Clevedon, Avon: Multilingual Matters.
- Ellis, R. (1999). *Learning a second language through interaction*. Amsterdam; Philadelphia: John Benjamins Publishing. <https://doi.org/10.1353/lan.2001.0233>
- Ellis, R. (2000). Task-based research and language pedagogy. *Language Teaching Research*, 4(3), 193–220.
- Ellis, R. (2003). *Task-based Language Learning and Teaching*. Oxford: Oxford University Press.

- Ellis, R. (2019). Towards a modular language curriculum for using tasks. *Language Teaching Research*, 23(4), 454–475. <https://doi.org/10.1177/1362168818765315>
- Eneau, J., & Poyet, F. (2009). Contribution à la professionnalisation de futurs tuteurs en langues : le cas de l'apprentissage d'une langue étrangère à distance en synchronie. In C Develotte, F. Mangenot, & E. Nissen (Eds.), *Echanger pour apprendre en ligne (EPAL)* (p. <http://w3.u-grenoble3.fr/epal/actes.html>). Grenoble, France. Retrieved from <https://halshs.archives-ouvertes.fr/halshs-00633753>
- Engeström, R. (1995). Voice as Communicative Action. *Mind, Culture, and Activity*, 2(3), 192–214. <https://doi.org/10.1080/10749039509524699>
- Engeström, Y. (1987). *Learning by Expanding: An Activity-Theoretical Approach to Developmental Research*. Helsinki: Finland: Orienta-Konsultit, Oy. <https://doi.org/https://doi.org/10.1017/CBO9781139814744>
- Engeström, Y. (1999). Communication, Discourse and Activity. *Communication Review*, 3(1/2), 165–186. Retrieved from <http://web.b.ebscohost.com.dcu.idm.oclc.org/ehost/detail/detail?vid=0&sid=54c035b1-f79f-40b4-977a-cddcf9022f98%40pdc-v-sessmgr05&bdata=JnNpdGU9ZWwhvc3QtbGl2ZQ%3D%3D#AN=4114913&db=cms>
- Engeström, Y. (2001). Expansive Learning at Work: Toward an activity theoretical reconceptualization. *Journal of Education and Work*, 14(1), 133–156. <https://doi.org/10.1080/13639080123238>
- Engeström, Y. (2005). *Developmental work research: expanding activity theory in practice*. Berlin: Lehmanns Media. <https://doi.org/10.1002/0471142735.ima03bs111>
- Engeström, Y. (2008). *From teams to knots: Activity theoretical studies of collaboration and learning at work*. Cambridge: Cambridge University Press.
- Engeström, Y. (2014). *Learning by Expanding: An Activity-Theoretical Approach to Developmental Research* (2nd ed.). Cambridge University Press.
- Engeström, Y., Miettinen, R., & Punamäki, R.-L. (1999). *Perspectives on Activity Theory*. Cambridge: Cambridge University Press.
- Engestrom, Y., & Sannino, A. (2010). Studies of expansive learning: Foundation, findings and future challenges. *Educational Research Review*, 5, 1–24.
- Engeström, Y., & Sannino, A. (2011). Discursive manifestations of contradictions in organizational change efforts: A methodological framework. *Journal of Organisational Change Management*, 24(3), 368–387.
- Engeström, Y., & Toiviainen, H. (2011). Co-configurational design of learning instrumentalities. In S. Ludvigsen, A. Lund, I. Rasmussen, & R. Säljö (Eds.), *Learning Across Sites (New tools, infrastructures and practices)*. Abingdon: Routledge.
- eTwinning. (n.d.). Retrieved October 10, 2015, from

<https://www.etwinning.net/en/pub/index.htm>

- Fairclough, N. & Wodak, R. (1997). Critical Discourse Analysis. In *Discourse as Social Interaction. Discourse Studies: A Multidisciplinary Introduction. Vol. 2*. London: Sage.
- Fichtner, B. (1984). Co-ordination, cooperation and communication in the formation of theoretical concepts in instruction. In M. Hedegaard, P. Hakkarainen, & Y. Engeström (Eds.), *Learning and Teaching on a Scientific Basis: Methodological and Epistemological Aspects of the Activity Theory of Learning and Teaching*. Aarhus: Aarhus Universitet, Psykologisk Institut.
- Flewitt, R., Hampel, R., Hauck, M., & Lancaster, L. (2009). What are multimodal data and transcription? In C. Jewitt (Ed.), *The Routledge Handbook of Multimodal Analysis* (pp. 40–53). London: Routledge.
- Foot, K., & Groleau, C. (2011). Contradictions, transitions, and materiality in organizing processes: An activity theory perspective. Retrieved May 31, 2018, from <https://firstmonday.org/ojs/index.php/fm/article/view/3479/2983>
- Gaies, S. J. (1977). The nature of linguistic input in formal second language learning: linguistic and communicative strategies in ESL teachers' classroom language. *On Tesol*, 77, 204–212.
- Gass, S. (1997). *Input, Interaction and the Second Language Learner*. Mahwah: Lawrence Erlbaum.
- Gass, S. M., Mackey, A., & Pica, T. (1998). The Role of Input and Interaction in Second Language Acquisition Introduction to the Special Issue. *The Modern Language Journal*, 82(3), 299–307. <https://doi.org/10.1111/j.1540-4781.1998.tb01206.x>
- Gaver, W. (1991). Technology affordances. In *Proceedings of the SIGCHI conference on human factors in computing systems*. New York: Association for Computing Machinery.
- Gaver, William. (1996). Affordances for Interaction: The Social is Material for Design. *Psychology*, 8(2), 111--129.
- Gettliffe, N., & Toffoli, D. (2011). Régulations pédagogiques et formations de tuteurs dans un dispositif de visioconférence poste à poste pour étudiants débutants en Français Langue Etrangère. In *EPAL-Echanger Pour Apprendre en Ligne*.
- Gibson, E. J., & Pick, A. D. (2000). *An Ecological Approach to Perceptual Learning and Development*. Cary, USA: Oxford University Press.
- Gibson, J. J. (1979). *The Ecological Approach to Visual Perception*. New York: Psychology Press, Taylor & Francis Group.
- Gibson, James J. (1979). The Theory of Affordances. In Catherine Caws & M.-J. Hamel (Eds.), *The Ecological Approach to Visual Perception* (pp. 127–136). Amsterdam; Philadelphia: John Benjamins Publishing. <https://doi.org/citeulike-article-id:3508530>
- Granger, S. (2004). Computer learner corpus research: current status and future prospects. In *Applied Corpus Linguistics* (pp. 123–145). Brill Rodopi.

- Greenberg, A. D. (2009). Mapping the Latest Research into Video-Based Distance Education The 2009 Updated, Expanded Analysis Navigating the Sea of Research. *Wainhouse Research*, (September).
- Guichon, N. (2009). Training future language teachers to develop online tutors' competence through reflective analysis. *ReCALL*, 21(2), 166–185. <https://doi.org/10.1017/S0958344009000214>
- Guichon, N. (2013). Une approche sémio-didactique de l'activité de l'enseignant de langue en ligne: réflexions méthodologiques. *Education et Didactique*, 7(1), 101–116.
- Guichon, N. (2017). Se construire une présence pédagogique en ligne. In N. Guichon & M. Tellier (Eds.), *Enseigner l'oral en ligne : une approche multimodale*. Paris: Les Editions Didier.
- Guichon, N., Bétrancourt, M., & Prié, Y. (2012). Managing written and oral negative feedback in a synchronous online teaching situation. *Computer Assisted Language Learning*, 25(2), 181–197.
- Guichon, N., Blin, F., Thouësny, S., & Wigham, C. R. (2014). ISMAEL LEarning and TEaching Corpus. Dublin, Ireland: Centre for Translation & Textual Studies & Lyon, France: Laboratoire Interactions, Corpus, Apprentissages & Représentations.
- Guichon, N., & Cohen, C. (2016). Multimodality and CALL. In F. Farr & L. Murray (Eds.), *The Routledge Handbook of Language Learning and Technology* (pp. 509–521). Routledge.
- Guichon, N., & Hauck, M. (2011). Teacher education research in CALL and CMC: more in demand than ever. *ReCALL*, 23(3), 187–199. <https://doi.org/10.1017/S0958344011000139>
- Guichon, N., & Nicolaev, V. (2009). Caractériser des tâches d'apprentissage et évaluer leur impact sur la production orale en L2.
- Guichon, N., & Tellier, M. (2017). *Enseigner l'oral en ligne*. (N. Guichon & M. Tellier, Eds.). Paris: Les Editions Didier.
- Guichon, Nicolas, & Drissi, S. (2008). Tutorat de langue par visioconférence : comment former aux régulations pédagogiques Tutorat de langue par visioconférence : comment former aux régulations pédagogiques? *Les Cahiers de l'Acedle*, 5, 185–217. Retrieved from <http://acedle.u-strasbg.xn--frdcembre-d4a>
- Guichon, Nicolas, & Nicolaev, V. (2011). Influence de certaines caractéristiques des tâches d'apprentissage sur la production orale en L2. In E. Nissen, F. Poyet, & T. Soubrié (Eds.), *Interagir et apprendre en ligne* (pp. 61–76). Grenoble: Ellug. <https://doi.org/10.4000/books.ugaeditions.1186>
- Guth, S., & Helm, F. (2010). *Telecollaboration 2.0: Language, literacies and intercultural learning in the 21st century* (Vol. 1). Peter Lang.
- Guth, S., & Helm, F. (2011). Developing multiliteracies in ELT through telecollaboration. *ELT Journal*, 66(1), 42–51.
- Hampel, R. (2006). Rethinking Task Design for the Digital Age: A Framework for Language

- Teaching and Learning in a Synchronous Online Environment. *ReCALL*, 18(1), 105–121.
- Hampel, R., & Stickler, U. (2012). The use of videoconferencing to support multimodal interaction in an online language classroom. *ReCALL*, 24(2), 116–137. <https://doi.org/10.1017/S095834401200002X>
- Hampel, Regine, & Stickler, U. (2005). New skills for new classrooms: Training tutors to teach languages online. *New Skills for New Classrooms: Training tutors to teach languages online. Computer Assisted Language Learning*, 18(4), 311–326. <https://doi.org/10.1080/09588220500335455>
- Hatch, E. (1970). More Problems for the Elementary School ESL Teacher. *DOCUMENT RESUME FL 002 501 Bracy, Matyruth, Ed. Workpapers) in (Teaching English as a Second Language, Volume IV.*, 90.
- Hauck, M., & Hampel, R. (2008). Strategies for online learning environments. *Language Learning Strategies in Independent Settings*, 33, 283.
- Haugen, E. (1972). *The Ecology of Language*. Stanford, CA: Stanford University Press.
- Heath, M. J., & Holzngel, D. (2002). *Interactive Videoconferencing: A Literature Review*, NECC.
- Hedestig, U., & Kaptelinin, V. (2005). Facilitator's roles in a videoconference learning environment. *Information Systems Frontiers*, 7(1), 71–83.
- Hellermann, J., & Doehler, S. P. (2010). On the contingent nature of language-learning tasks. *Classroom Discourse*, 1(1), 25–45.
- Holt, B. (2018). *Séquences d'explication lexicale dans l'enseignement du français par visioconférence : une approche multimodale*. Université Lumière Lyon 2.
- Holt, B., & Tellier, M. (2017). Conduire des explications lexicales. In N. Guichon & M. Tellier (Eds.), *Enseigner l'oral en ligne : une approche multimodale*. Paris: Les Editions Didier.
- Hutchby, I. (2001). *Conversation and Technology: From the Telephone to the Internet*. Cambridge: Polity Press.
- Ilyenkov, E. V. (1977). *Dialectical Logic: Essays in its History and Theory*. Moscow: Progress.
- Jauregi, K., & Bañados, E. (2008). Virtual interaction through video-web communication: A step towards enriching and internationalizing language learning programs. *ReCALL*, 20(2), 183–207. <https://doi.org/10.1017/S0958344008000529>
- Jorgensen, M., & Phillips, L. (2002). *Discourse Analysis as Theory and Method*. London: Sage Publications.
- Kaptelinin, V. (2005). The object of activity: Making sense of the sense-maker. *Mind, Culture, and Activity*, 12(1), 4–18. <https://doi.org/10.1207/s15327884mca1201>
- Kaptelinin, V. (2014). Affordances. *The Encyclopedia of Human-Computer Interaction* (2nd ed.). Retrieved June 10, 2015, from <https://www.interaction-design.org/literature/book/the-encyclopedia-of-human-computer-interaction-2nd-ed/affordances>

- Kaptelinin, V., & Nardi, B. (2012). Affordances in HCI: Toward a mediated action perspective. In *Proceedings of the 2012 ACM Annual Conference on Human Factors in Computing Systems* (pp. 967–976). New York: Association for Computing Machinery.
- Kaptelinin, V., & Nardi, B. (2018). Activity Theory as a Framework for Human-Technology Interaction Research. *Mind, Culture, and Activity*, 25(1), 3–5. <https://doi.org/10.1080/10749039.2017.1393089>
- Kaptelinin, V., Nardi, B., Bødker, S., Carroll, J., Hollan, J., Hutchins, E., & Winograd, T. (2003). Post-cognitivist HCI: Second-wave theories. In *CHI'03 extended abstracts on Human factors in computing systems* (pp. 692–693). New York: Association for Computing Machinery.
- Kelly Hall, J. (1995). (Re)creating our worlds with words: A sociohistorical perspective of face-to-face interaction. *Applied Linguistics*, 16(2), 206–232. <https://doi.org/10.1093/applin/16.2.206>
- Kenny, D. (2001). *Lexis and Creativity in Translation: A Corpus-based Study*. Manchester, Northampton, MA: St. Jerome Publications.
- Kern, R., & Develotte, C. (2018). Introduction: Intercultural exchange in the age of online multimedial communication. In R. Kern & C. Develotte (Eds.), *Screens and Scenes: Multimodal Communication in Online Intercultural Encounters*. New York: RoutledgeNe.
- Kinginger, C. (1998). Videoconferencing as access to spoken French. *Modern Language Journal*, 82(4), 502–513. <https://doi.org/10.1111/j.1540-4781.1998.tb05537.x>
- Kirschner, P. (2002). Cognitive load theory: Implications of cognitive load theory on the design of learning. *Learning and Instruction*, 12, 1–10. [https://doi.org/10.1016/S0959-4752\(01\)00014-7](https://doi.org/10.1016/S0959-4752(01)00014-7)
- Kirschner, P., Kreijns, K., Jochem, W. M. G., & van Buuren, H. (2004). Determining Sociability, Social Space, and Social Presence in (A)synchronous Collaborative Groups. *CyberPsychology & Behavior*, 7(2), 155–172.
- Kirschner, P., Strijbos, J., Kreijns, K., & Beers, P. J. (2004). Designing electronic collaborative learning environments. *Educational Technology Research and Development*, 52(3), 47–66.
- Kramsch, C., & Thorne, S. L. (2002). Foreign language learning as global communicative practice. In *Globalization and language teaching* (pp. 93–110). Routledge.
- Kramsch, C., & Vork Steffensen, S. (2008). Kuutti. In *Encyclopedia of Language and Education* (pp. 2595–2606). Boston, MA: Springer US. https://doi.org/10.1007/978-0-387-30424-3_194
- Krashen, S. (1985). *The input hypothesis*. Beverly Hills, CA: Laredo Publishing Company.
- Kress, G., & van Leeuwen, T. (2001). *Multimodal Discourse*. London: Arnold.
- Kruger, T. J. (2001). A Virtual Revolution: Trends in the Expansion of Distance Education, American Federation of Teachers. *ERIC*, 15(11).

- Kuutti, K. (1996). Activity Theory as a potential framework for Human-Computer Interaction research. In B. Nardi (Ed.), *Context and Consciousness: Activity Theory and Human-Computer Interaction* (pp. 17–44). Cambridge, MA: The MIT Press.
- Laclau, E., & Mouffe, C. (1990). Post-Marxism without apologies. In E. Laclau (Ed.), *New Reflections on the Revolution of Our Time*. London: Verso.
- Lai, C., & Zhao, Y. (2006). Noticing and text-based chat. *Language Learning & Technology*, 10(3), 102–120.
- Lam, W. S. E. (2000). L2 literacy and the design of the self: A case study of a teenager writing on the Internet. *TESOL Quarterly*, 34(3), 457–482.
- Lamy, M.-N., & Hampel, R. (2007). *Online Communication in Language Learning and Teaching (Research and Practice in Applied Linguistics)*. Palgrave Macmillan UK.
- Lantolf, J. P., & Thorne, S. L. (2007). Sociocultural theory and second language learning (pp. 197–220). Oxford: Oxford University Press. Retrieved from <http://old.fltrp.com/download/07041802.pdf>
- Lantolf, J P, & Appel, G. (1994). *Vygotskian Approaches to Second Language Research*. Ablex Publishing Corporation. Retrieved from <https://books.google.ie/books?id=QbB-CGkx4hwC>
- Lantolf, James P. (1996). SLA theory building:“Letting all the flowers bloom!” *Language Learning*, 46(4), 713–749.
- Lantolf, James P. (2000). *Sociocultural Theory and Second Language Learning*. Oxford: Oxford University Press.
- Lantolf, James P, & Frawley, W. (1985). Oral-Proficiency Testing: A Critical Analysis. *The Modern Language Journal*, 69(4), 337–345. <https://doi.org/10.1111/j.1540-4781.1985.tb04801.x>
- Larsen-Freeman, D. (1997). Chaos/Complexity science and second language acquisition. *Applied Linguistics*, 18(2), 141–165.
- Laurillard, D., Stratfold, M., Luckin, R., Plowman, L., & Taylor, L. (2000). Affordances for Learning in a Non-Linear Narrative Medium. *Journal of Interactive Media in Education*, 2, 1–19.
- Lee, J. S., Nakamura, Y., & Sadler, R. (2018). Effects of videoconference-embedded classrooms (VEC) on learners’ perceptions toward English as an international language (EIL). *ReCALL*, 30(3), 319–336. <https://doi.org/10.1017/S095834401700026X>
- Lee, L. (2000). Synchronous Online Exchanges: A Study of Modification Devices on Non-native Discourse. *System*, 30, 275–288.
- Lee, M. J. W. (2009). How can 3D virtual worlds be used to support collaborative learning? An analysis of cases from the literature. *Journal of E-Learning and Knowledge Society*, 5(1), 149–158.

- Lektorsky, V. (2004). Science, Society and Ethics. *POZNAN STUDIES IN THE PHILOSOPHY OF THE SCIENCES AND THE HUMANITIES*, 81, 229–232.
- Lektorsky, V. A. (2009). Mediation as a Means of Collective Activity. In Annalisa Sannino, H. Daniels, & K. D. Gutierrez (Eds.), *Learning and expanding with activity theory* (pp. 75–87). Cambridge University Press.
- Lemke, J. (2002). Language development and identity: Multiple timescales in the social ecology of learning. In C. Kramsch (Ed.), *Language Acquisition and Language Socialisation: Ecological Perspectives*. London: UK: Continuum.
- Lemke, J. L. (2000). Across the Scales of Time: Artifacts, Activities, and Meanings in Ecosocial Systems. *Mind, Culture, and Activity*, 7(4), 273–290. <https://doi.org/10.1207/S15327884MCA0704>
- Lemke, J. L. (2001). The Long and the Short of It: Comments on Multiple Timescale Studies of Human Activity. *Journal of the Learning Sciences*, 10(1–2), 17–26. https://doi.org/10.1207/S15327809JLS10-1-2_3
- Leontyev, A. N. (1978). *Activity and Consciousness*. (Andy Blunden, Ed.). CA, USA: Marxists Internet Archive. <https://doi.org/10.1103/PhysRevC.18.1688>
- Leontyev, A. N. (1981). *Problems of the development of the mind*. Moscow: Progress.
- Levy, M. (1998). Two conceptions of learning and their implications for CALL at the tertiary level. *ReCALL*, 10(1), 86–94.
- Levy, M., & Caws, C. (2016). CALL design and research. Taking a micro and macro view. In C. Caws & M.-J. Hamel (Eds.), *Language-Learner Computer Interactions: Theory, methodology and CALL applications* (pp. 89–113). Amsterdam; Philadelphia: John Benjamins Publishing.
- Lewis, T. (2006). When teaching is learning: A personal account of learning to teach online. *Calico Journal*, 581–600.
- Lightbown, P. M., & Spada, N. (1990). Focus-on-form and corrective feedback in communicative language teaching: Effects on second language learning. *Studies in Second Language Acquisition*, 12(4), 429–448.
- Lim, C. P., & Hang, D. (2003). An activity theory approach to research of ICT integration in Singapore schools. *Computers and Education*, 41, 49–63.
- Lin, A. M. Y. (2007). What's the Use of 'Triadic Dialogue'? Activity Theory, Conversation Analysis and Analysis of Pedagogical Practices. *Pedagogies: An International Journal*, 2(2), 77–94. <https://doi.org/10.1080/15544800701343943>
- Lockee, B., Moore, M., & Burton, J. (2002). Measuring Success: Evaluation Strategies for Distance Education. *Educause Quarterly*.
- Loftus, M., Tiernan, P., & Cherian, S. (2014). Students' readiness to move from consumers to producers of digital video content: A cross-cultural analysis of Irish and Indian Students.

-
- Education Information Technology*, 19, 569–582. <https://doi.org/10.1007/s10639-013-9286-4>
- Long, M. (2015). *Second language acquisition and task-based language teaching*. Malden, MA: Wiley-Blackwell.
- Long, M. H. (1983a). Does second language instruction make a difference? A review of the research. *TESOL Quarterly*, 17, 359–382.
- Long, M. H. (1983b). Linguistic and Conversational Adjustments to Non-Native Speakers. *Studies in Second Language Acquisition*, 5(2).
- Long, M. H., & Robinson, P. (1998). Focus on form Theory, research, and practice. *Focus on Form in Classroom Second Language Acquisition*, 15, 15–41.
- Long, M. H., & Sato, C. J. (1983). Classroom foreigner talk discourse: Forms and functions of teachers' questions. *Classroom Oriented Research in Second Language Acquisition*, 268–285.
- Long, Michael. (1996). The Role of the Linguistic Environment in Second Language Acquisition. *Handbook of Second Language Acquisition*. <https://doi.org/10.1016/B978-012589042-7/50015-3>
- Lundgren, D. (2007). *Perceived Barriers to the Adoption of Videoconferencing and Recommendations to Reduce Concerns*.
- Mackey, A., & Philp, J. (1998). Conversational Interaction and Second Language Development: Recasts, Responses, and Red Herrings? *The Modern Language Journal*, 82(3), 338–356. <https://doi.org/10.1111/j.1540-4781.1998.tb01211.x>
- Markee, N. (2015). Giving and following pedagogical instructions in task-based instruction: An ethnomethodological perspective. In P. Seedhouse & C. Jenks (Eds.), *International perspectives on the ELT classroom* (pp. 110–128). Basingstoke: Palgrave Macmillan UK.
- Marti, N. M., & Fernández, S. S. (2016). Telecollaboration and sociopragmatic awareness in the foreign language classroom. *Innovation in Language Learning and Teaching*, 10(1), 34–48.
- Martin, F., Parker, M., & Allred, B. (2013). A Case Study on the Adoption and Use of Synchronous Virtual Classrooms. *Electronic Journal of E-Learning*, 11(2), 124–138.
- Mayer, R. E. (2005). *The Cambridge Handbook of Multimedia Learning*. New York: Cambridge University Press.
- McCafferty, S. G. (1994). Adult Second Language Learners' Use of Private Speech: A Review of Studies. *The Modern Language Journal*, 78(4), 421–436. <https://doi.org/10.1111/j.1540-4781.1994.tb02060.x>
- McEnery, T., & Hardie, A. (2012). *Corpus Linguistics*. Cambridge: Cambridge University Press.
- McGrenere, J., & Ho, W. (2000). Affordances: Clarifying and evolving a concept. Proceedings of Graphics Interface 2000.
- Mehan, H. (1979). *Learning lessons*. Harvard University Press Cambridge, MA.

- Meskill, C. (2005). Triadic Scaffolds: Tools for Teaching English Language Learners with Computers. *Language Learning & Technology*, 9(1), 46–59.
- Milner, A. D., & Goodale, M. A. (1995). Oxford psychology series, No. 27. The visual brain in action. New York, NY, US: Oxford University Press.
- Modupe, I. (1999). *Relative Effectiveness of Distance Learning Systems*, Lucent Technologies and The World Campus, Pennsylvania State University.
- Möllering, M., & Levy, M. (2012). Language Learning in Virtual Worlds. In R. O’Dowd & M. Dooly (Eds.), *Researching online foreign language interaction and exchange: Theories, methods and challenges*. Bern: Peter Lang Publishing.
- Moridani, M. (2007). Asynchronous Video Streaming vs. Synchronous Videoconferencing for Teaching a Pharmacogenetic Pharmacotherapy Course. *American Journal of Pharmaceutical Education*.
- Nardi, B. (1996). *Context and Consciousness: Activity Theory and Human Computer Interaction*. Massachusetts: Massachusetts Institute of Technology.
- Nocchi, S. (2017). *The affordances of virtual worlds for language learning*.
- Norman, D. A. (1988). *The psychology of everyday things (Vol. 11)*. New York: Basic Books.
- Norman, D. A. (1999). Affordance, conventions, and design. *Interactions*, 6(3), 38–43.
- Norman, D. A. (2013). *The design of everyday things: Revised and expanded edition*. New York: Basic Books.
- Norris, S. (2004). *Analysing Multimodal Interaction: A methodological framework*. London: Routledge.
- Nunan, D. (1992). *Research methods in language learning*. Cambridge university press.
- Nunan, D. (2004). *Task-Based Language Teaching*. Cambridge: Cambridge University Press.
- O’Dowd, R. (2003). Understanding the “other side”: Intercultural learning in a Spanish-English e-mail exchange. *Language Learning & Technology*, 7(2), 118–144.
- O’Dowd, R. (2013). Telecollaborative networks in university higher education: Overcoming barriers to integration. *The Internet and Higher Education*, 18, 47–53.
- O’Dowd, R., & Ware, P. (2009). Critical issues in telecollaborative task design. *Computer Assisted Language Learning*, 22(2), 173–188.
- O’Dowd, Robert, & Ritter, M. (2006). Understanding and working with ‘failed communication’ in telecollaborative exchanges. *CALICO Journal*, 623–642.
- O’Keeffe, A., McCarthy, M., & Carter, R. (2007). *From corpus to classroom: Language use and language teaching*. Cambridge University Press.
- Ohta, A. S. (1995). Applying sociocultural theory to an analysis of learner discourse: Learner-learner collaborative interaction in the zone of proximal development. *Issues in Applied Linguistics*, 6(2), 93–121.
- Park, Y. J., & Bonk, C. J. (2007). Synchronous learning experiences: Distance and residential

- learners' perspectives in a blended graduate course. *Journal of Interactive Online Learning*, 6(3), 245–264.
- Pavlidou, T.-S., Kapellidi, C., & Karafoti, E. (2014). The Corpus of Spoken Greek (CSG). In S. Ruhi, M. Haugh, T. Schmidt, & K. Wörner (Eds.), *Best Practices for Spoken Corpora in Linguistic Research* (pp. 56–74). Newcastle upon Tyne: Cambridge Scholars Publishing.
- Payne, J. S., & Ross, B. M. (2005). Synchronous CMC, Working Memory, and L2 Oral Proficiency Development. *Language Learning & Technology*, 9(3), 35–54.
- Peterson, M. (1997). Language teaching and networking. *System*, 25(1), 29–37.
- Pica, T. (1996). The essential role of negotiation in the communicative classroom. *JALT Journal*, 18(2), 241–268.
- Pica, T., & Long, M. H. (1986). The linguistic and conversational performance of experienced and inexperienced teachers. *Talking to Learn: Conversation in Second Language Acquisition*, 85–98.
- Pols, A. J. K. (2011). Characterising affordances: The descriptions-of-affordances-model. *Design Studies*, 33(2012), 113–125. <https://doi.org/10.1016/j.destud.2011.07.007>
- Porquier, R., & Py, B. (2004). *Apprentissage d'une langue étrangère: contextes et discours*. Didier.
- Pxtan2. (2014). Video Conferencing History. Retrieved October 12, 2016, from <https://www.scribd.com/document/260978928/Video-Conferencing-History>
- Reffay, C., Betbeder, M.-L., & Chanier, T. (2012). Multimodal learning and teaching corpora exchange: Lessons learned in 5 years by the Mulce project. *International Journal of Technology Enhanced Learning*, 4(1), 1–20.
- Richards, J. C., & Rodgers, T. S. (2001). *Approaches and methods in language teaching*. Cambridge: Cambridge University Press.
- Rogers, Y., Sharp, H., & Preece, J. (2011). *Interaction Design: Beyond Human - Computer Interaction - third edition*. Wiley.
- Roth, W.-F. (2001). Situating cognition. *The Journal of the Learning Sciences*, (10), 27–61.
- Rubstov, V. V. (1991). *Learning in Children: Organisation and Development of Cooperative Actions*. Happaage, NY: Nova Science.
- Sannino, A., Daniels, H., & Gutiérrez, K. D. (Eds.). (2009). *Learning and expanding with activity theory*. New York: Cambridge University Press.
- Sarré, C. (2011). Computer-mediated negotiated interactions: how is meaning negotiated in discussion boards, text chat and videoconferencing? *Second Language Teaching and Learning with Technology: Views of Emergent Researchers*, 189.
- Satar, H. M. (2016). Meaning-making in online language learner interactions via desktop videoconferencing. *ReCALL*, 28(3), 305–325. <https://doi.org/10.1017/S0958344016000100>
- Satar, H. M., & Wigham, C. R. (2017). Multimodal instruction-giving practices in

- webconferencing-supported language teaching. *System*, 70, 63–80.
<https://doi.org/10.1016/j.system.2017.09.002>
- Sauro, S. (2009). Computer-mediated corrective feedback and the development of L2 grammar. *Language Learning & Technology*, 13(1), 96–120.
- Sauro, S., & Sundmark, B. (2019). (2019). Critically examining the use of blog-based fanfiction in the advanced language classroom. *ReCALL*, 31(1), 40–55.
<https://doi.org/10.1017/S0958344018000071>
- Savignon, S. J. (1983). *Communicative competence: Theory and classroom practice: Texts and contexts in second language learning*. Reading, MA: Addison-Wesley.
- Schegloff, E. A., Jefferson, G., & Sacks, H. (1977). The Preference for Self-Correction in the Organization of Repair in Conversation. *Language*, 53(2), 361–382.
<https://doi.org/10.2307/413107>
- Shaer, B., & Fuchs, A. (2008). Work in Progress – Student Learning Outcomes in an Engineering Distance Education Setting. In *ASEE/IEEE Frontiers in Education Conference 2008*.
- Sheen, R. (2006). Focus on form as a means of improving accurate oral production. In A. Housen & M. Pierrard (Eds.), *Investigations in instructed second language acquisition* (pp. 271–310). Berlin: Mouton de Gruyter.
- Simpson, J. (2005). Conversational Floors in Synchronous Text-based CMC Discourse. *Discourse Studies*, 7(3), 337–361.
- Sinclair, J. (1999). A way with common words. *Language and Computers*, 26, 157–180.
- Smith, B. (2003). Computer-mediated negotiated interaction: An expanded model. *The Modern Language Journal*, 87(1), 38–57.
- Sotillo, S. M. (2000). Discourse function and syntactic complexity in synchronous and asynchronous communication. *Language Learning and Technology*, 4(1), 82–119.
- Souvignet, J. (2008). Le français en première ligne. Retrieved October 10, 2016, from http://eprints.aidenligne-francais-universite.auf.org/235/1/Le_français_en_première_ligne.pdf
- Stigler, J. W., Shweder, R. A., & Herdt, G. (1990). *Cultural Psychology. Essays on Comparative Human Development*. Cambridge: Cambridge University Press.
- Swain, M. (1985). Communicative competence: Some roles of comprehensible input and comprehensible output in its development. *Input in Second Language Acquisition*, 15, 165–179.
- Swain, M., & Lapkin, S. (1998). Interaction and second language learning: Two adolescent French immersion students working together. *The Modern Language Journal*, 82(3), 320–337.
- Tharp, R. G., & Gallimore, R. (1988). *Rousing minds to life: Teaching, learning, and schooling in social context. Rousing minds to life: Teaching, learning, and schooling in social context.*

- New York, NY, US: Cambridge University Press.
- Thorne, S. L. (2003). Artifacts and cultures-of-use in intercultural communication. *Language Learning & Technology*, 7(2), 38–67.
- Tudini, V. (2003). Éléments conversationnels du clavardage: un entraînement à l'expression orale pour les apprenants de langues à distance? *Alsic. Apprentissage Des Langues et Systèmes d'Information et de Communication*, 6(2).
- Tudini, V. (2007). Negotiation and intercultural learning in Italian native speaker chat rooms. *The Modern Language Journal*, 91(4), 577–601.
- Turner, P. (2005). Affordance as context. *Interacting with Computers*, 17(6), 787–800.
- Twigg, C. A. (2001). Innovations in Online Learning: Moving beyond No Significant Difference. The Pew Symposia in Learning and Technology (4th, Phoenix, Arizona, December 8-9, 2000). *ERIC*, (1), 1–35.
- U.S. Department of Education Office of Planning, Evaluation, and Policy Development - Policy and Program Studies Service. (2009). Retrieved March 25, 2020, from <http://www.ed.gov/about/offices/list/opepd/ppss/reports.html#edtech>
- UNICollaboration. (n.d.). Retrieved October 25, 2010, from <https://www.unicollaboration.org/index.php/about/>
- Van der Zwaard, R., & Bannink, A. (2018). Reversal of participation roles in NS-NNS synchronous telecollaboration. *CALICO Journal*, 35(2), 162–181. <https://doi.org/10.1558/cj.30810>
- Van Lier, L. (1991). Inside the Classroom: Learning Processes and Teaching Procedures. *Applied Language Learning*, 2(1), 29–68.
- Van Lier, L. (2004a). *The Ecology and Semiotics of Language Learning: A Sociocultural Perspective*. The Netherlands: Kluwer Academic Publishers.
- Van Lier, L. (2004b). The semiotics and ecology of language learning. *Utbildning & Demokrati*, 13(3), 79–103.
- Van Lier, L. (2008). Agency in the classroom. *Sociocultural Theory and the Teaching of Second Languages*, 163, 186.
- Van Lier, L. (2000). From input to affordance: Social-interactive learning from an ecological perspective. In J. P. Lantolf (Ed.), *Sociocultural theory and second language learning* (pp. 245–259). Oxford: Oxford University Press.
- Van Lier, Leo. (1998). The Relationship Between Consciousness, Interaction and Language Learning. *Language Awareness*, 7(2–3), 128–145. <https://doi.org/10.1080/09658419808667105>
- Vicente, K., & Rasmussen, J. (1990). The ecology of human-machine systems II: Mediating “direct perception” in complex work domains. *Ecological Psychology*, 2(3), 207–249.
- Vidal, J., & Wigham, C. (2017). Fournir des rétroactions en ligne. In N. Guichon & M. Tellier

- (Eds.), *Enseigner l'oral en ligne : une approche multimodale*. Paris: Les Editions Didier.
- Vidal, Julie. (2018). *Etude des séquences de rétroaction corrective dans un dispositif en ligne d'enseignement/apprentissage du français langue étrangère : Une approche multimodale de l'oral*. Université Lumière Lyon 2.
- Vološinov, V. N. (1986). *Marxism and the Philosophy of Language*, (Trsl. Ladislav Matejka and I.R. Titunik). Cambridge: Harvard University Press.
- Vyas, D., Chisalita, C. M., & Dix, A. (2008). Dynamics of affordances and implications for design (Report).
- Vyas, D., Chisalita, C. M., & Van Der Veer, G. C. (2006). Affordance in interaction. Proceedings of the 13th European conference on cognitive ergonomics: Trust and control in complex socio-technical systems. In *Affordance in interaction. Proceedings of the 13th European conference on cognitive ergonomics: Trust and control in complex socio-technical systems* (pp. 92–99). Zurich, Switzerland: Association for Computing Machinery.
- Vygotsky, L. (1962). Thought and language (E. Hanfmann & G. Vakar. *The Concept of Activity in Soviet Psychology*. https://doi.org/10.1007/978-0-387-30600-1_4
- Vygotsky, L. S. (1978). *Mind in Society: The Psychology of Higher Mental Functions*. Cambridge: Harvard University Press.
- Vygotsky, L. S. (1986). *Thought and Language* (A. Kozulin, Ed., Trans.). Cambridge, MA: MIT Press.
- Wagman, J., & Carello, C. (2003). Haptically creating affordances: The user tool interface. *Journal of Experimental Psychology: Applied*, 9(4), 175–186.
- Wagner, E. (1994). In support of a functional definition of interaction. *American Journal of Distance Education*, 8(2), 6–29. <https://doi.org/10.1080/08923649409526852>
- Walsh, S. (2013). *Classroom Discourse and Teacher Development*. Edinburgh: Edinburgh University Press.
- Walsh, Steve. (2014). *Classroom interaction for language teachers*. TESOL International Association.
- Wang, Y. (2007). Task design in videoconferencing-supported distance language learning. *Calico Journal*, 591–630.
- Ware, P. (2005). “ Missed” communication in online communication: Tensions in a German-American telecollaboration. *Language Learning & Technology*, 9(2), 64–89.
- Ware, P. D., & Kramsch, C. (2005). Toward an intercultural stance: Teaching German and English through telecollaboration. *The Modern Language Journal*, 89(2), 190–205.
- Weasenforth, D., Biesenbach-Lucas, S., & Meloni, C. (2002). Realizing constructivist objectives through collaborative technologies: Threaded discussions. *Language Learning & Technology*, 6(3), 58–86.
- Wertsch, J. V. (1991). *Voices of the Mind: A Sociocultural Approach to Mediated Action*.

Cambridge, Massachusetts: Harvard University Press.

Wittenburg, P., Brugman, H., Russel, A., Klassmann, A., & Sloetjes, H. (2006). Elan: a professional framework for multimodality research. In *Proceedings of the 5th International Conference on Language Resources and Evaluation (LREC 2006)* (pp. 1556–1559).

Yamagata-Lynch, L. C. (2010). *Activity Systems Analysis Methods: Understanding complex learning environments*. New York: Springer.

Appendix A: Ethical Approval

Appendix A1: Ethical approval for this study

by Research Ethics Committee, DCU, Dublin

Ollscoil Chathair Bhaile Átha Cliath
Dublin City University



Ms Aparajita Dey-Plissonneau
School of Applied Language and Intercultural Studies

8th January 2016

REC Reference: DCUREC/2015/255

Proposal Title: The study of emerging affordances and constraints with a view to improve pedagogical design for synchronous online language teaching and learning.

Applicant(s): Ms Aparajita Dey-Plissonneau, Dr Françoise Blin, Dr Maria Loftus

Dear Aparajita,

This research proposal qualifies under our Notification Procedure, as a low risk social research project. Therefore, the DCU Research Ethics Committee approves this project.

Materials used to recruit participants should state that ethical approval for this project has been obtained from the Dublin City University Research Ethics Committee.

Should substantial modifications to the research protocol be required at a later stage, a further amendment submission should be made to the REC.

Yours sincerely,

A handwritten signature in black ink, reading 'Dónal O'Mathúna'.

Dr Dónal O'Mathúna
Chairperson
DCU Research Ethics Committee



Taighde & Nuálaíocht Tacaíocht
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Appendix A2: Description of the ISMAEL project and Plain Language Statement for the creation of the ISMAEL corpus

REC/2013/___

Research Ethics Committee: Notification Form for Low-Risk Projects

DCU Research Ethics Committee has introduced a procedure for notification to the committee of low-risk social research projects, in which personal information that is deemed not sensitive is being collected by interview, questionnaire, or other means

The committee requires researchers to concisely answer the following questions **within this form** (before the project starts):

| |
|---|
| <p>Project Title: Creation of a multimodal language LEarning and TEaching Corpus (LETEC) for research and teacher training purposes</p> <p>Applicant Name, School/Unit and E-mail: 1) Françoise Blin, CTTS/SALIS, francoise.blin@dcu.ie 2) Nicolas Guichon, Université Lyon 2 Lumière / Laboratoire ICAR (CNRS,ENS), n.guichon@orange.fr</p> <p><u>If a student applicant, please provide the additional information:</u> Level of Study (Undergrad/Taught MSc/Research MSc/PhD): Supervisor Name and E-mail:</p> |
| <p>Questions:</p> <p>1. Provide a lay description of the proposed research (approx. 300wds):</p> <p>A corpus of multimodal online interactions is a collection of recordings of interactions that took place in an online environment, including via desktop videoconferencing. Different modalities, such as speech, text, drawings and images, hand gestures, facial expression, gaze and body posture can be transcribed and annotated. A multimodal language <i>LEarning and TEaching Corpus</i> (LETEC) is a collection of annotated recordings of synchronous or asynchronous online interactions that took place between all actors (i.e. learners, tutors, native speakers), as well as learner productions and pedagogical scenarios that were produced in the context of a fully online or blended language course (Chanier & Ciekanski, 2010). It provides a valuable resource not only for second language development and teacher education research, but also for teacher training.</p> <p>Drawing on the LETEC methodology (Wigham & Chanier, 2013), this pilot project seeks to create a multimodal learning and teaching corpus of online interactions that took place between French tutors from the Université Lyon 2 (France) and DCU students from the BA in Global business (Year 2) in Semester 1 of the current academic year. It aims to facilitate the sharing and dissemination, in strict adherence to ethical guidelines and according to a <i>Material Transfer Agreement</i> adapted from the CNRS model (available on request), of the overall corpus or its sub-sets with a view to contribute to further research, as well as to in-service or pre-service teacher training, in the following areas:</p> <ol style="list-style-type: none"> 1. The study of emerging affordances and constraints with a view to improve pedagogical design for synchronous online language teaching and learning; 2. The study of multimodal feedback provision and its impact on second language development and learning behaviours; 3. The study of the use by online teachers and learners of a broad range of multimodal resources, including gestures and paralinguistic cues. <p>References: Ciekanski, M., Chanier, T (2008). Developing online multimodal verbal communication to enhance the writing process in an audio-graphic conferencing environment. <i>ReCALL</i>, vol. 20 (2), 162-182. Wigham, C.R. & Chanier, T. (2013). LEarning and TEaching corpora (LETEC) : data-sharing and repository for research on multimodal interactions. <i>WorldCALL 2013</i>, 10-13 juillet 2013, Glasgow, UK.</p> |
| <p>2. Detail your proposed methodology (1 page max.):</p> <p>The project will be conducted in two phases, from December 2013 until August 2014. It is anticipated that the project will be continued during the academic year 2014-2015 with new cohorts of tutors and learners.</p> <p>It is proposed to create, annotate, and share with a restricted number of researchers, a multimodal corpus of tutor-learner interactions that took place in the context of a pedagogical project, <i>Le français en première ligne (FIL)</i>, between SALIS and the Université Lyon 2 Lumière during the first semester of the academic year 2013/2014. In the course of the semester, students on a Masters in 'Teaching French as a Foreign Language' (Université Lyon 2) tutored a group of students of French (module</p> |

Last updated September 2013

Appendix A2: Description of the ISMAEL project and Plain Language Statement for the creation of the ISMAEL corpus (continued 1)

REC/2013/___

FR238) from the BA in Global Business, Year 2. The interactions between tutors and learners took place between 15 October 2013 and 3 December 2013 via *Visu*, a videoconferencing system especially designed to facilitate synchronous online tutoring and the provision of multimodal feedback. Sessions were automatically recorded and the recordings were used by tutors to provide feedback to learners, who could then review and reflect on their performance. The pedagogical aims of the project are thus twofold: (1) to provide teacher trainees from Lyon with opportunities for the development of their online teaching competencies; and (2) to provide DCU students with opportunities to develop their spoken interaction skills and competencies in French.

The first phase of this research project (December 2013 – April 2014) will involve the creation and annotation of the Learning and Teaching Corpus associated to the instantiation of the project. Recordings of the interactions will be retrieved from *Visu*, anonymised, transcribed and annotated. Context and learning tasks descriptions, selected learner productions, focus groups and interview transcripts will also be included in the corpus. A Material Transfer Agreement will be drawn between the corpus owners (i.e. CTTS and Laboratoire ICAR) and the *Laboratoire Parole et Langage* (Université Aix-en-Provence/CNRS).

The second phase of the project (May 2014 – August 2014) will entail investigating exemplars of research questions with a view to assess whether the annotated corpus is fit for purpose in the three areas previously outlined. More specifically, the corpus will be used to investigate the following research questions:

1. What educational, technological, and language affordances emerged during online interactions and what are the factors that enabled or constrained their realisation by *learners*? What are the implications for pedagogical design? (DCU)
2. How do language *tutors* construct individualised and multimodal formative feedback reports? How do *learners* make use of these reports to further develop their interactional competencies in the target language? (Lyon and DCU)
3. How do *tutors* make use of multimodal resources, including gestures and paralinguistic cues, to teach in an online environment? (Lyon/Aix-en-Provence)

Give examples of other sources of data for specific research questions and types of interactions that will be used

1. Last assignment (Reflective report), Focus groups/Retroactive semi-structured interviews
2. Last assignment (Reflective report), Focus groups/Retroactive semi-structured interviews
3. This research question will not make direct use of data gathered from DCU students

3. Detail the means by which potential participants will be recruited:

Towards the end of the semester (December 2013), the module co-ordinator and teacher, who is also the main researcher on the DCU campus, will explain the research project to the DCU students. Students will be given the plain language statement and informed consent form, and will be given the opportunity to ask any question or raise any concern about the project. Permission will then be sought to use all or some of the recordings and other artefacts produced as regular part of their French module. Students will have a week to fill in the informed consent form, which they will give, in a sealed envelope, to a SALIS colleague who has no involvement in the teaching or examining of the course. It will be emphasised that their decision to participate or not in the study will not be shared with the module co-ordinator until the publication of Semester 1 results and that, consequently, it will not have any impact on their final results for the course.

A similar exercise is conducted in Lyon 2, according to best ethical practice and French regulations.

4. How will the anonymity of the participants be respected?

All names will be replaced by codes or pseudonyms and identity markers removed during the transcription stage. However, as full anonymisation is not possible when studying interactions, especially in relation to face and voice recognition, different levels of anonymisation will apply at different stages of the research (i.e., annotation, encoding and analysis, report-writing and publishing, conference presentations, etc.). In particular, extracts of recordings may be used in future presentations for conference or training purposes. However, any identifying features that may reveal the identity of students involved will be masked out with the use of video editing software. In addition, participants will have the option to request that their face be blurred.

5. What risks are researchers or participants being exposed to, if any?

Last updated September 2013

Appendix A2: Description of the ISMAEL project and Plain Language Statement for the creation of the ISMAEL corpus (continued 2)

REC/2013/___

None. The module co-ordinator will be unaware of who has consented to participate in the study until the publication by the University of Semester 1 results. Data gathered from students who do not wish to participate, or who wish to withdraw at any stage, will be omitted and will not be analysed.

6. Have approval/s have been sought or secured from other sources? Yes/No

If Yes, give details:

In Lyon, the trainees were asked to sign an informed consent sheet explicitly stating the purposes of the research project and explaining what use would be made of the data.

In addition, the research team from the *Laboratoire Parole et Langage (Aix-en-Provence)* will sign a *Material Transfer Agreement*.

7. Please confirm that the following forms are attached to this document:

Informed Consent Form Yes

Plain Language Statement Yes

If not, explain why:

- NB – The application should consist of **one electronic file only**, which incorporates all supplementary documentation – including all documentation being presented to the participants (e.g. Informed Consent Form, Plain Language Statement, questionnaires, surveys, interview questions etc).
- Student applicants must cc their supervisor on that e-mail – this applies to all student applicants (masters and postgraduate).
- The completed application must be proofread and spellchecked before submission to the REC. All sections of the form should be completed.

Applications which do not adhere to these requirements will not be accepted for review and will be returned directly to the applicant. The administrator to the Research Ethics Committee will assess, on receiving such notification, whether the information provided is adequate and whether any further action is necessary. Please complete this form and e-mail to rec@dcu.ie

Please note: Project supervisors have the primary responsibility to ensure that students do not take on research that could expose them and the participants to significant risk, such as might arise, for example, in interviewing members of vulnerable groups such as young children. In general, please refer to the REC Guidelines for further guidance on what research procedures or circumstances might make ethical approval necessary (https://www4.dcu.ie/researchsupport/research_ethics/guidelines.shtml)

Appendix A2: Description of the ISMAEL project and Plain Language Statement for the creation of the ISMAEL corpus (continued 3)

REC/2013/___

Plain language statement

Creation of a multimodal language Learning and Teaching Corpus (LETEC) for research and teacher training purposes

Françoise Blin, CTTS, SALIS, Dublin City University, francoise.blin@dcu.ie
Nicolas Guichon, Université Lyon 2 Lumière / Laboratoire ICAR, n.guichon@orange.fr

A corpus of multimodal online interactions is a collection of recordings of interactions that took place in an online environment, including via desktop videoconferencing. Different modalities, such as speech, text, drawings and images, hand gestures, facial expression, gaze and body posture can be transcribed and annotated. A multimodal language *Learning and Teaching Corpus (LETEC)* is a collection of anonymised and annotated recordings of synchronous or asynchronous online interactions that took place between all actors (i.e. learners, tutors, native speakers), as well as learner productions and pedagogical scenarios that were produced in the context of a fully online or blended language course. It provides a valuable resource not only for second language development and teacher education research, but also for teacher training. However, preparing such a corpus for research or training purposes is extremely time consuming and challenging. As a result, researchers are increasingly working on methods and standards to share corpora with the research community in order to either replicate a study or to investigate new questions. When a learning and teaching corpus is shared with other researchers, it is done in adherence to strict ethical rules.

Between 15 October and 3 December 2013, you have participated in a pedagogical project, *Le français en première ligne (F1L)*. As part of your regular class activities, you took part in six videoconferencing sessions via the *Visu* platform. For these sessions, you were allocated a French tutor from Université Lyon 2 Lumière (France), who guided you through a variety of tasks and provided you with some feedback (*bilan*) after each session. The sessions were recorded and are also available to you on *Visu*. Taken together, these recordings and the *bilans* produced by your tutors constitute a rich multimodal corpus that can be anonymised, annotated and analysed with a view, firstly to better understand the pedagogical interactions that take place in environments such as *Visu*, and their impact on foreign/second language development, and secondly to improve the design of language teacher education programmes.

We would like to use the material that was produced during the *Visu* sessions during the semester, as well as other materials that the French tutors and yourselves generated as part of your regular language teaching/learning activities, to create and annotate a sharable learning and teaching corpus. We would also like to analyse the transcribed, anonymised and annotated data to explore and better understand the following:

1. The factors that have helped or constrained your language use and development during your interactions with your tutors on *Visu*;
2. The preparation of the *bilans* by your tutors and the use you made of them to improve your interactional competencies in French;
3. Tutors' use of gestures, facial expressions, chat, etc., as they engaged in a pedagogical conversation with you.

We thus seek your permission to transcribe your contributions to the *Visu* sessions and the *bilans* that you received so that they can be analysed for research or training purposes, and to share parts or all of this material with other researchers, under strict rules that will protect your right to anonymity and privacy. We also seek your permission to augment this corpus with your last assignment (*Rapport individuel*) and with the interactions that took place on Moodle (F1L section only). We would also like to invite you to participate in some interviews or focus groups at a future date. Finally, we seek your permission to quote or show some of the gathered data in academic journals or conference presentations, and in teacher training materials.

While your participation in this study will be greatly appreciated, your decision to participate or not is strictly voluntary and will not affect your grades in any way: it will not be shared with any of your

Last updated September 2013

Appendix A2: Description of the ISMAEL project and Plain Language Statement for the creation of the ISMAEL corpus (continued 4)

REC/2013/___

French teachers, included Françoise Blin, until Semester 1 results are released by the University, and the analysis of the corpus will not begin until then. If you choose to participate, you can withdraw from the study at any time and/or refuse to contribute some of the material you produced during the semester without suffering any negative consequences or impact on your grades for any of your French modules. If you choose to withdraw, all data gathered until the time of withdrawal will be omitted and not be analyzed.

If you agree to participate, your name and any identity marker will be removed during the transcription stage. However, as full anonymisation is not possible when studying interactions, especially in relation to face and voice recognition, different levels of anonymisation will apply at different stages of the research. In particular, extracts of recordings may be used in future presentations for conference or training purposes. However, any identifying features that may reveal your identity will be masked out with the use of video editing software, and you may request that your face be blurred. Any quote used in presentations or publications will be carefully selected to ensure that they do not contain any information that might be used to identify your identity.

All data will be stored on a secure server to which only the investigators and research assistants from Lyon 2 and DCU will have access. Researchers from other partner institutions (e.g. Université Aix-en-Provence) wishing to work on parts or whole of the full data set will sign a *Material Transfer Agreement* that will ensure that their research is conducted in accordance with all elements of this statement.

Dr. Françoise Blin
28 November 2013

Prof. Nicolas Guichon
28 November 2013

If participants have concerns about this study and wish to contact an independent person, please contact:

The Secretary, Dublin City University Research Ethics Committee, c/o Research and Innovation Support, Dublin City University, Dublin 9. Tel 01-7008000

Last updated September 2013

Appendix A3: Informed consent form for tutees (in Dublin)

REC/2013/____

Informed Consent Form

Creation of a multimodal language LEarning and TEaching Corpus (LETEC) for research and teacher training purposes

Françoise Blin, CTTS, SALIS, Dublin City University, francoise.blin@dcu.ie
Nicolas Guichon, Université Lyon 2 Lumière / Laboratoire ICAR, n.guichon@orange.fr

Between 15 October and 3 December 2013, you have participated in a pedagogical project, *Le français en première ligne (F1L)*. As part of your regular class activities, you took part in six videoconferencing sessions via the *Visu* platform. For these sessions, you were allocated a French tutor from Université Lyon 2 Lumière (France), who guided you through a variety of tasks and provided you with some feedback (*bilan*) after each session. The sessions were recorded and are available to you on *Visu*. We would like to use the material that was produced during the *Visu* sessions, as well as the interactions that took place on Moodle (F1L section) and your final assessment (*Rapport Individuel*) to create a multimodal corpus that would then be used to investigate 1) the factors that have helped or constrained your language use and development during your interactions with your tutors on *Visu*; and 2) the preparation of the *bilans* by your tutors and the use you made of them to improve your interactional competencies in French. The corpus will also be shared with other research teams, according to strict rules, who may want to explore various aspects of second language development in online environments.

Participation in this research project is voluntary and your decision to take part or not will have no effect on your grades. If you decide not to take part, the data you authored will not be included in the corpus.

Please complete the following (Circle Yes or No for each question)

| | | |
|---|-----|----|
| <i>I have read the Plain Language Statement (or had it read to me)</i> | Yes | No |
| <i>I understand the information provided</i> | Yes | No |
| <i>I have had an opportunity to ask questions and discuss this study</i> | Yes | No |
| <i>I have received satisfactory answers to all my questions</i> | Yes | No |
| <i>I am satisfied that arrangements have been made to protect my anonymity as far as possible</i> | Yes | No |
| <i>I am aware that the confidentiality of the information I provide is subject to legal limitations</i> | Yes | No |
| <i>I give permission for my anonymised data to be included in the corpus. I am aware that the corpus may be shared with other researchers</i> | Yes | No |
| <i>I give permission for extracts of the recordings where I appear to be shown at conferences and teacher training sessions:</i> | | |
| <i>With my face in clear but with all other identity markers masked out</i> | Yes | No |
| <i>With my face blurred and all other identity markers masked out</i> | Yes | No |
| <i>I give permission for snapshots of the recordings where I appear to be published in academic articles:</i> | | |
| <i>With my face in clear but with all other identity markers masked out</i> | Yes | No |
| <i>With my face blurred and all other identity markers masked out</i> | Yes | No |
| <i>I give permission for selected anonymised quotes from my data to be used in academic publications</i> | Yes | No |
| <i>I would be willing to take part in interviews/focus groups at a future date</i> | Yes | No |

I have read and understood the information in this form. My questions and concerns have been answered by the researchers, and I have a copy of this consent form. Therefore, I consent / do not consent (~~strikethrough as appropriate~~) to take part in this research project under the conditions specified above.

Last updated September 2013

Appendix A3: Informed consent form for tutees (in Dublin) (continued)

REC/2013/ __

Participants Signature: _____

Name in Block Capitals: _____

Witness: _____

Date: _____

Last updated September 2013

Appendix A4: Informed consent form for tutors (in Lyon)



ENTRE

**CONTRAT VALANT AUTORISATION
D'ENREGISTREMENTS
AUDIOVISUELS ET DE DIFFUSION
(article 9 du Code Civil)**

L'Université LUMIERE LYON 2
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86, rue Pasteur - 69 007 LYON
Représenté par son président, Monsieur Olivier Christin

ET

Nom et Prénom :

Qualité :

Adresse :

Agissant tant en son nom qu'au nom de ses enfants mineurs

Considérant que toute personne a sur son image et sur l'utilisation qui en est faite un droit exclusif qui lui permet de s'opposer à sa diffusion sans son autorisation, il est convenu ce qui suit :

Article 1 -

La personne ci-dessus nommément désignée agissant tant pour son compte que pour celui de ses ascendants accepte d'être filmée et enregistrée par les enseignants de l'Université Lumière Lyon 2 pour une mission d'enseignement au cours de l'année universitaire 2008-2009.

Article 2 -

Ces enregistrements audiovisuels s'inscrivent dans le cadre d'activités pédagogiques et de recherche de l'Université Lumière Lyon 2 aux fins de réalisation de documentaires ou de « petites formes documentaires ».

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Appendix A4: Informed consent form for tutors (in Lyon) (continued)



Article 3 –

Ces documentaires ou « petites formes documentaires » pourront notamment :

- Etre utilisés comme supports pédagogiques et de recherche par l'Université Lumière Lyon 2.
- Etre présentés à des publics divers, au cours de colloques ou à la télévision.
- Des extraits des enregistrements audiovisuels ainsi que des photographies pourront servir de supports d'enseignements, de communications et éventuellement promotionnels.
- Faire l'objet d'une mise en ligne sur le site Internet et Intranet de l'Université Lumière Lyon2.

Article 4 –

L'Université Lumière Lyon 2 s'engage à ne pas utiliser ces documentaires ou autres « petites formes documentaires » dans des conditions qui pourraient nuire à l'image de la personne filmée ou à l'activité qu'elle réalise et lui porter préjudice.

Article 5 –

La présente autorisation ne donne lieu à aucune rémunération, ni versement de tous autres droits légaux ou à venir.

Article 6 -

La présente convention deviendra caduque en cas d'utilisation abusive par l'une ou l'autre des parties des présentes dispositions.

Fait à Lyon, en deux exemplaires, le

Le Président de l'Université Lyon 2

L'étudiant

Appendix A5: Ethical clearance accorded by DCU for the creation of the ISMAEL corpus

Ollscoil Chathair Bhaile Átha Cliath
Dublin City University



Françoise Blin
School of Applied Language and Intercultural Studies

13th December 2013

REC Reference: DCUREC/2013/232
Proposal Title: Creation of a multimodal language LEarning and TEaching Corpus (LETEC) for research and teacher training purposes
Applicants: Françoise Blin, Nicholas Guichon

Dear Françoise,

This research proposal qualifies under our Notification Procedure, as a low risk social research project. Therefore, the DCU Research Ethics Committee approves this research proposal. Materials used to recruit participants should state that ethical approval for this project has been obtained from the Dublin City University Research Ethics Committee. Should substantial modifications to the research protocol be required at a later stage, a further submission should be made to the REC.

Yours sincerely,

A handwritten signature in black ink, reading 'Donal O'Mathuna'. The signature is written in a cursive style with a large initial 'D'.

Dr. Donal O'Mathuna
Chairperson
DCU Research Ethics Committee



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Appendix B: Session plans designed by Lyon tutor pairs

Appendix B1: Session plan 1 on “Work Conditions and Rights”

(with lecturers' comments)

Séance 1: Les droits du travail

Activité 1- Les conditions de travail (5 minutes):

1. As-tu l'impression que les Irlandais sont heureux d'aller au travail? Et est-ce qu'ils sont satisfaits de leurs conditions de travail?
2. Quels sont les problèmes rencontrés par les travailleurs irlandais?

89% des salariés satisfaits de leurs conditions de travail



3. Que penses-tu de cette caricature?

Comment [R11]: Quelles réponses attendez-vous?

Comment [R12]: Qu'attendez-vous comme réponses?

Activité 2 - Les Français et le droit de grève (total : 20 minutes):

NB: Distinguer le terme *grève* de *manifestation*: la grève concerne des revendications liées au travail.

1. Est-ce que tu sais ce que veut dire le mot "grève"?
2. Est-ce que tu penses que c'est un droit important pour les travailleurs?

• Activité 2.1: La grève, une longue tradition française: (7 minutes)

1. Peux-tu commenter le titre de cette activité en t'appuyant sur les deux photos: avant et aujourd'hui.

Comment [R13]: Relance : Pourquoi?

Comment [R14]: Hier?

Appendix B1: Session plan 1 on “Work Conditions and Rights” (continued)

(with lecturers’ comments)

• Activité 2.2 : La grève chez le père Noël (7 minutes) :

1. Peux-tu me décrire cette image? Que veulent les personnages?
2. Est-ce que tu comprends la phrase "on veut les 35h!"?
3. Combien d'heures par semaine en moyenne vous travaillez en Irlande?



Comment [R16]: Comment est-ce que...

Comment [R17]: Relance : tu trouves que c'est bcp ou que c'est acceptable? Et toi, en tant qu'étudiant, tu travailles combien d'heures par jour?

Activité 3 - Les congés, un autre droit (15 minutes):

- 1 Sais-tu ce que sont les "congés payés" et combien de temps ils durent en France?
- 2 Maintenant tu peux regarder la vidéo sur les congés illimités. Pourquoi cette entreprise est particulière?
- 3 Et toi, aimerais-tu avoir des congés illimités dans ton futur travail?
- 4 Dans la vidéo, on parle d'un paradoxe. Est-ce que tu as compris de quoi il s'agit? Tu peux me l'expliquer?
- 5 Est-ce que tu penses que ce système pourrait fonctionner dans toutes les entreprises? Et en Irlande?

<http://www.youtube.com/watch?v=y8CNSu18LKM>

Comment [R18]: Prévoir des relances du style : 2 semaines, 3 semaines?

Comment [R19]: Pensez à la mettre sur Moodle avec des consignes de visionnage sans que ce soit forcément les questions que vous allez poser pendant la séance.

Appendix B1: Session plan 1 on “Work Conditions and Rights” (continued)

(with lecturers’ comments)

Activité 4 - La pause café, plus qu'un droit! (5 minutes):

1. A quoi (mots, adjectifs, expressions, etc.) associes-tu la “pause café”?
Par exemple: “c’est un moment de détente”
2. Regarde l’image et explique ce que l’on apprend sur les Français?
3. Peux-tu comparer ces statistiques avec ton expérience ou tes représentations de la pause café dans les entreprises irlandaises?

Comment [R110]: Quel est l’équivalent en Irlande?

Comment [R111]: En terme grammatical, il me semble qu’il ya aurait moyen de travailler sur les nombres. C’est à creuser.

Comment [R112]: Ils sont étudiants en business mais pas en psychologie sociale!!! Pensez à adapter.



Appendix B2: Session plan 2 on “Discussing one’s professional experience”

(with lecturers’ comments)

[tt_3]

[tt_9]

Parler de ses expériences professionnelles – Raconter/se situer dans le temps

5 MINUTES DE SALUTATIONS, PRISE DE NOUVELLES + questions sur les bilans multimodaux

ACTIVITÉ 1 – MON EXPÉRIENCE PROFESSIONNELLE (10 MIN)

- + Tu as un job ou tu as déjà travaillé? En quoi? Depuis/pendant combien de temps? Combien d’heures par semaine?
- + Pourquoi est-ce que tu travailles/as travaillé? pour gagner de l’argent? pour gagner de l’expérience? les deux?
- + Si tu n’as pas (eu) de travail: est-ce que tu fais une activité extrascolaire? Raconte ton expérience. (bénévolat, animation, théâtre, musique, sport, etc.)
- + Est-ce qu’en Irlande les jeunes travaillent pendant l’année ou pendant l’été ?
- + Pour quelles raisons ?
- + Dans quels types d’endroits ils travaillent ?
- + A partir de quel âge peut-on travailler en Irlande? *À quel âge tu as commencé à travailler ? Quel était ton job ? *seulement s’ils ont déjà travaillé*
- + MOTS CLÉS: job étudiant (on utilise le terme anglais), vendeur, baby-sitter - nounou, tuteur, réceptionniste, secrétaire, caissier, budget étudiant, “arrondir les fins de mois” **petit boulot**

Comment [R11]: Cela donne l’impression d’une alternative.

Comment [R12]: Dans quel domaine ?

Comment [R13]: Le rapport entre les deux parties de la question n’est pas clair.

ACTIVITÉ 2 – LE STAGE (10 MIN)

- + Pour les jobs d’été, tu penses qu’il est plus important de trouver du travail dans ton domaine d’études ou de trouver n’importe quel travail pour gagner de l’argent? Pourquoi?
- + Selon toi, quelle est l’utilité d’un stage?
- + Est-ce que tu as déjà fait des stages? qu’est-ce que tu faisais? tu avais des responsabilités?
- + Regarde cette vidéo et commente les avantages d’un stage qui sont présentés.
- + Fais attention, une faute d’orthographe s’y est glissée... Tu la trouves ?

[Vidéo Claire](#)(1 min)

*On mettra un résumé des points principaux de la vidéo, que le tuteur utilisera en cas d’incompréhension de la part de l’apprenant. Il est possible de visionner la vidéo plusieurs fois.

- + Que dit Claire à propos de ses expériences de stage ?
- + Tu es d’accord avec Claire? Quels autres avantages trouves tu à la réalisation d’un stage?
- + Quels inconvénients peux-tu nommer?
- + Selon toi, quels sont les points positifs de faire un stage à l’étranger ?
- + MOTS CLÉS : hiérarchie, sous-fifre = “esclave”, expérience, monde du travail, stage.

Comment [R14]: Non, cela ne signifie pas esclave

ACTIVITÉ 3 – LE BILAN DE MES EXPÉRIENCES (10 MIN)

- + Tes expériences de stage, de travail, de bénévolat étaient des expériences positives ou négatives? Donne moi des exemples.

- Qu’est-ce que ces expériences (même tes activités extra-scolaires) t’ont appris sur toi même et sur tes compétences professionnelles ? Afficher les mots clés si les apprenants n’ont pas d’idées à propos des compétences développées et les faire parler sur ces points là

Mots Clés : prendre des responsabilités, prendre des initiatives, travaille en équipe, vaincre sa timidité, développer des qualités relationnelles, être flexible, hiérarchie, sous-fifre = « esclave », expérience, monde du travail, stage.

Appendix B3: Session plan 3 on “Preparing for the work experience in France”

Session objectives:

1^{ère} activité :

Dire pourquoi on voudrait intégrer l'entreprise proposée

- Structures grammaticales pour exprimer une préférence
- Exprimer l'adéquation entre le stage et son projet de carrière

Activité de préparation :

Distinguer les niveaux de discours de la langue française

- Ce que je peux dire à mon employeur
- Ce que je ne peux pas dire à mon employeur

2^{ème} activité

Simuler un entretien :

- Le tuteur devient le stagiaire
- L'étudiant devient l'employeur

Exprimer ses compétences :

- Etre capable de (+verbe à l'infinitif/ GN)
- Déterminer une ou deux compétences
- As-tu pu regarder le bilan que j'ai préparé pour toi ? As-tu des questions ou c'était assez clair ?
- Au fait, tu ne m'as toujours pas expliqué ce que c'était une « Business school » parce que je ne sais pas à quoi cela correspond exactement en France.
- Est-ce que c'est toi qui a décidé de faire cette école ? C'était vraiment ton choix ? Et pourquoi avoir fait ce choix ?
- Tu étudies quoi à l'université ? Et tu as une spécialité ? Vous faites tous la même dans cette classe ?
- Et du coup, votre enseignante nous a dit que vous cherchez un stage sur Reims pour l'année prochaine, c'est toujours le cas ? Et alors, tu as déjà des idées, des pistes ?
- Et la vidéo tu as pu la regarder ? ça t'a donnée des idées de stage ?

Session 3 Tasks:

1^{ère} activité : Recrutement chez BNP

Penses-tu avoir les compétences pour obtenir un stage dans cette entreprise ?

Est-ce que tu sais si cette entreprise existe aussi en Irlande ?

Activité de préparation :

Je vais te proposer des phrases et j'aimerais que tu me dises si tu pourrais les adresser à ton employeur ou non. N'oublie pas de me dire pourquoi 😊

a). Vous pouvez me signer ma convention, s'il vous plaît ?

b). Tu peux me signer ma convention, s'il te plaît ?

a). Bonjour, je me présente : je suis le nouveau stagiaire.

b). Salut, je suis le nouveau stagiaire.

a). J'ai pas de voiture du coup je viendrai au boulot en tram.

b). Je n'ai pas de voiture. Je viendrai donc à mon travail en tramway.

Exprimer ses compétences en simulant un entretien :

- Pourquoi voulez-vous faire ce stage dans cette entreprise ?
- Vous connaissez quoi de notre entreprise ?
- Citez-moi deux de vos qualités ?
- Parmi les compétences qu'on recherche quelle est celle qui vous correspond le plus ? Pourquoi ?
- Est-ce que vous pensez que ce stage peut vous servir une fois que vous serez en Irlande ? En quoi ? Et par rapport à votre projet professionnel ?

stages Retour aux résultats de la recherche Nouvelle recherche

Recommander Une personne recommande ça. Soyez le premier de vos amis.

annonce précédente annonce suivante

Stage assistant marketing et commercial, H/F (1 poste)

Employeur : Fédération Nationale des Comités et Organisateur de Festivités (autres offres de stages de Fédération Nationale des Comités et Organisateur de Festivités)

1 poste | lieu Toulouse (31) , centre-ville | 05/11/2013 | Réf. 56318804

Mission
 Sous la responsabilité du Directeur de la fédération, vous serez principalement chargé(e) de mettre en œuvre la stratégie de conquête commerciale auprès des artistes et des organisateurs occasionnels d'événements, ainsi que de développer des partenariats auprès de prestataires de la fête.

Profil
 - Formation supérieure de niveau Bac +2 à Bac +3 en filière commerciale, marketing. - Autonomie, rigueur, sens de l'organisation et qualités relationnelles. - Maîtrise de la suite Office, connaissances web.

Tu n'es évidemment pas obligé de proposer le document suivant à tes étudiants.

Il peut toutefois :

- servir de trace écrite pour les groupes qui n'auront pas disposé d'assez de temps pour finir
- servir de bilan pour les groupes qui auront mené la séquence à son terme

Pourquoi l'utiliser ?
 S'assurer que tous les étudiants auront les mêmes enseignements et seront donc les plus "égaux" possibles dans leurs démarches de recherche de stage !

Appendix B4: Session plan 4 on “Project-proposal for a kid’s party at McDonald’s & managing group conflict”

(with lecturers’ comments)

FLE EN LIGNE – Interaction 4

Thèmes de notre séance :

- ⇒ Mettre en place un projet. une équipe
- ⇒ Animer une équipe/Gestion de projet
- ⇒ Gérer les conflits au sein d’une équipe

Partie 1 : introduction

- ⇒ ‘les retrouvailles’ Tu as passé une bonne semaine ? Qu’est-ce que tu as fait ce weekend ? Est-ce que tu as eu le temps de lire ton bilan ? Tu as des questions sur le bilan, ou il y a des choses que tu n’as pas comprises ?
- ⇒ Tu dois faire ton propre bilan pour ton cours à la DCU, et on va le construire ensemble. Comment est-ce que tu veux que je t’aide ? Qu’est-ce qui t’a surpris, dans nos interactions, au niveau culturel (: sur l’entreprise « française » entre autres, mais pas seulement) ? Qu’est-ce que tu as appris à travers ces séances ?

Comment [R11]: [t_1], plusieurs tuteurs m’ont dit que lorsqu’ils avaient évoqué le bilan multimodal que tu vas leur demander via Voicethread, ils ne semblaient pas au courant. Comment le désignes-tu - car c’est sûrement un problème d’appellation ?

Partie 2 : La gestion de projet !

Imagine. Tu es équipier chez McDonald’s et ton manager et toi réfléchissez à une nouvelle formule pour les goûters d’anniversaire (je ne sais pas comment ça marche en Irlande, mais en France, il y a des animations pour les anniversaires d’enfants). Continuer la consigne ici en distinguant les deux cas de figure. Dire qqchose comme ensemble, on va construire un pense-bête, c’est-à-dire une liste de toutes les actions à entreprendre pour mener à bien ce projet.

Au fur et à mesure, on peut leur distiller des mots clés (par exemple : rétro planning), mais on discute ensemble de la marche à suivre pour ce projet.

=> à la fin, pour les groupes avec un seul apprenant : lui demander de faire concrètement la liste de tout ce qu’il y a à faire pour cette situation et ils nous la dictent. Le tuteur français recopie tout dans le chat, afin que les étudiants aient aussi une trace écrite.

=> à la fin, s’ils sont deux : ils écrivent un à un ou se complètent, et le tuteur reste en retrait.

Précisez en amont qu’il y aura deux temps.

Maintenant qu’on a la liste de tout ce qu’il y a à faire. Quel serait l’ordre de priorités ? Quel point est-ce que tu places en premier : lequel est le plus important pour toi ? Pourquoi ? **OK**

Comment [R12]: Ne mettez pas les mémos au même niveau sinon on ne comprend rien à votre prép.

Comment [R13]: Je propose qu’il nominalise : par exemple ‘il faut penser à commander les gâteaux » → commande des gâteaux.

Partie 3 : Le travail en équipe : entente parfaite ou conflits ?

Appendix B4: Session plan 4 on “Project-proposal for a kid’s party at McDonald’s & managing group conflict” (continued)

(with lecturers’ comments)

⇒ Je suppose que tu as déjà travaillé en équipe pour les études ou au sein d’une équipe pour le travail. Est-ce que tu aimes travailler en équipe ? Qu’est-ce que ça peut apporter ? Tu trouves qu’il y a des inconvénients ? Lesquels ? Raconte moi une expérience de travail de groupe qui a mal tourné. Pourquoi, à ton avis, ça a mal tourné ? Quelles leçons tu en tires ?

⇒ Au sein d’un groupe, il y a toujours un leader, un manager. D’après toi, quelles sont les qualités essentielles qu’un bon manager doit avoir ? Regarde l’image et choisis 3 ou 4 mots qui te paraissent importants.

⇒ Lien pour l’image : http://leblogdudirigeant.com/wp-content/uploads/2013/07/Fotolia_49870860_XS.jpg

⇒ Pourquoi as-tu choisi ces mots-là ?

Comment [R14]: Déplacer cela à la fin. Ce n’est pas une activité passionnante et je doute que vous ayez le temps de la faire. Donc mettez la à la fin et ne la faites que si vous êtes coincés.

Le manager : entre autres, il motive son équipe et gère les conflits au sein de cette dernière.

⇒ **Les conflits**

A ton avis, pourquoi est-ce qu’il peut y avoir conflit au sein d’une équipe ? Est-ce que tu as déjà vécu une situation de conflit ? Dans quelles circonstances ? Comment est-ce que tu as réagi ?

Tu vas être amené(e) à être manager dans ta vie future. Comment est-ce que tu réagirais dans les situations suivantes :

- quelqu’un au travail qui arrive systématiquement en retard,
- « « « « « « « « qui ne travaille pas assez (préparez des mots clés) comme paresseux, etc. ,
- « « « « « « « « qui ne respecte pas les règles d’hygiène de l’entreprise en vigueur au sein de l’entreprise ou qui ne « présente pas bien » (expliquez ce que cela veut dire) , par exemple Mac Do,
- « « « « « « « « qui est peu courtois voire agressif avec les clients ?

Pour finir, la motivation ⇒ Au travail ou dans tes études, qu’est-ce qui est motivant pour toi ? D’après toi, qu’est-ce qui peut motiver les employés au travail, en temps de crise ? Comment installer la convivialité au travail ? (= pots à diverses occasions, journées à thème au travail, etc.) Là, on peut demander si faire des « pots » est une pratique courante en Irlande, par exemple.. (que les étudiants y aient déjà participé dans leurs premières expériences professionnelles, ou aient entendu leurs parents en parler à la maison) ?

Est-ce que manager est un rôle que tu aimerais jouer dans le futur ? Pourquoi ?

Dernière chose, les entreprises françaises utilisent différents moyens pour accroître la motivation de leurs équipes, sais-tu à quoi correspondent les termes suivants, peux-tu en donner une définition sommaire ?

- **Entretien annuel** pour faire un bilan avec le salarié de son activité et lui proposer le cas échéant une évolution de poste, une augmentation de salaire,
- Enfin, les **primes et l’intéressement aux résultats**, notamment pour les postes à dominante commerciale (memo pour les tuteurs : une prime est une somme versée à un salarié en plus

de son salaire, à titre d’encouragement ; l’intéressement est une forme particulière de rémunération du travail utilisée pour motiver les salariés à l’amélioration des performances de l’entreprise, elle se calcule en % du chiffre d’affaires ou du résultat de l’entreprise et concerne en France essentiellement les grandes entreprises).

Comment [R15]: Trop long. Trop de questions façon interrogatoire.

Appendix B5: Session plan 5 on “Project-pitching and marketing for a food truck in Lyon”

(with lecturers’ comments)

[tt_1] & [tt_12]

FLE en ligne – Séance 5

Thème

Argumenter / convaincre et mise en situation : vous travaillez dans une PME et vous voulez mettre en place un projet / équipe et vous devez convaincre votre patron de soutenir votre projet.

Début de la séance - Intro (5 min)

⇒ Bonjour, ça va ? On a très froid à Lyon et vous, quel temps il fait à Dublin maintenant ?

⇒ Est-ce que tu as eu le temps de lire ton bilan ? Tu as des questions sur le bilan, ou il y a des choses que tu n’as pas comprises ? **Dis-moi si ça correspond à ce que tu souhaites.**

Mise en place de la séance

Tu te rappelles, la semaine dernière on a vu comment monter un projet et aussi comment gérer les conflits dans une équipe de travail. C’est bien de savoir monter un projet, mais il est aussi important de savoir en proposer à son employeur et le convaincre que l’entreprise peut y gagner quelque chose ! C’est sur ça que nous allons travailler aujourd’hui dans la mise en situation suivante.

Mise en situation (entre 20 et 25 min, selon les binômes)

Je suis votre client. Je suis très exigeant, j’ai une idée assez précise de mon projet, et je vous impose des contraintes de lieux, de clientèle, de produits et de budget.

Comment [R11]: Aujourd’hui, je vais jouer le rôle d’un patron français

Je suis un client lyonnais qui souhaite développer son activité gastronomique.

Comment [R12]: bizarre

Je suis déjà propriétaire d’un restaurant de spécialités locales.

Comment [R13]: pourquoi ?

Mon projet est d’atteindre une nouvelle clientèle dite « bo-bo », dans un quartier branché de Lyon, la Croix-Rousse. On y retrouve des sociétés dynamiques gérées par de jeunes entrepreneurs. Les locaux coûtent très cher pour de très petites surfaces.

J’aimerais donc investir dans un camion-restaurant, qui se déplace chaque jour à la rencontre de cette clientèle prometteuse. Ma priorité est une carte très simple et originale,

Appendix B5: Session plan 5 on “Project-pitching and marketing for a food truck in Lyon” (continued)

(with lecturers’ comments)

[tt_1] & [tt_12]

soit un menu qui propose plusieurs tartines avec des produits du terroir : pain de boulangeries de quartier, charcuterie et fromages locaux et artisanaux, etc.

Comment [R14]: transformez cela en 3 étiquettes que vous leur enverrez : (1) localisation ; (2) clientèle visée (3) type de produit. Laissez leur le temps de les lire et de vous poser des questions s’ils ne comprennent pas tout. éventuellement, une photo du quartier, une photo des clients du Chantecler... pour leur faire deviner qui sont ces fameux bobos.

PREMIER TEMPS : L’ETUDE DE MARCHÉ

J’ai besoin de savoir si mon projet est réaliste. J’imagine qu’il faut commencer par faire une étude de marché. **C’est toi le spécialiste !**

- Quelles sont les étapes de celle-ci ?
- Qu’est-ce que l’étude de marché doit prendre en compte selon les paramètres que je vous ai donnés ?
- Une fois l’étude faite, comment savoir que ça vaut la peine de s’investir dans ce projet ?

Comment [R15]: Comment est-ce que tu organiserais cette étude de marché ?

Comment [R16]: Comment peut-on être sûr que mon concept va fonctionner ?

Comment [R17]: ???

J’ai pensé à 3 noms (merci d’en trouver). Lequel tu choisirais ?

Pendant que vous expliquez cela, je prends des notes.

Temps de préparation proposé aux apprenants : deux à trois minutes.

Les tuteurs doivent évidemment jouer le restaurateur sceptique. Voici quelques contre-arguments possibles :

- Est-ce qu’on attirera suffisamment de clients d’après votre étude de terrain ?
- (Pourquoi ne pas ouvrir un petit restaurant de type bistrot plutôt ? Ça permettra de fidéliser une nouvelle clientèle, non ?)
- Est-ce qu’il n’y en a pas suffisamment / trop dans la ville ?
- En quoi on se différencie des autres sur le type de produit ?
- Quelle gamme de produits doit-on offrir en rapport avec la clientèle visée ?
- Avez-vous ciblé une autre clientèle potentielle ?
- Quelles sont les conditions des fournisseurs locaux ? Je veux que ça soit de la qualité et que ça ne coûte pas trop et surtout, nous rapporte de l’argent.
- Les lieux stratégiques pour les arrêts programmés du camion permettront-ils de rentabiliser l’investissement ?

Appendix B5: Session plan 5 on “Project-pitching and marketing for a food truck in Lyon” (continued)

(with lecturers' comments)

[tt_1] & [tt_12]

- ~~Et votre imagination fera le reste du travail ! ;-)~~ (en fonction de vos conversation avec vos élèves tous si différents)

DEUXIEME TEMPS : LA CAMPAGNE MARKETING

Il s'agit maintenant de développer une campagne marketing pour faire connaître notre nouveau service. Quelles sont les stratégies marketing que vous utiliseriez pour développer ce projet ?

Décrivez, expliquez et **justifiez** vos démarches, je continue de prendre des notes. ☺

- Que proposez-vous pour maximiser notre visibilité ?
- Quel média proposez-vous d'utiliser ? Y en a-t-il un plus efficace que l'autre pour mon projet ?
Distribution de tracts ? Publipostage ? La presse locale ? Les réseaux sociaux ?
Lesquels ? Sites Web ?
- Comment peut-on fidéliser notre clientèle ?
- Qu'est-ce qu'on doit faire pour s'assurer d'avoir une campagne marketing réussie ?
Est-ce qu'il vaut mieux chercher à créer un « buzz » au tout début avec une campagne intensive ou plutôt être visible le plus longtemps possible ? Pourquoi ?

Temps de préparation proposé aux apprenants : deux à trois minutes

Clôture (optionnel, selon le temps restant)

- ⇒ As-tu déjà eu à présenter un projet à un employeur ou en cours ?
- ⇒ Avais-tu réussi à convaincre la personne ?
Si oui, est-ce que tu crois qu'un élément en particulier l'avait convaincu ? Lequel ?

Comment [R18]: Faire connaître le resto ?

Comment [R19]: Préparez des mots clés : campagne, affiches, ...
2 éventuellement repérez 2 affiches de pub pour des restos lyonnais et leur demander laquelle fonctionnerait le mieux :
<http://lascollection.chateausshotels.com/1con-les-lyon-2105>
<http://www.mylittle.fr/mylittleyon/food-truck-salle-lyon.html>

Comment [R110]: Attendez qu'ils vous disent cela. Demandez leur de les classer selon les coûts pour que vous puissiez faire un choix.

Comment [R111]: Dans le sujet ??? Vous n'en êtes qu'aux prémisses.

Comment [R112]: Comment faire pour créer le buzz ?

Comment [R113]: Question pas claire

Comment [R114]: Oui et leur demander s'ils sont prêts et leur accorder plus de temps si vous sentez qu'ils ont encore besoin de temps.

⇒ Sinon, sais-tu pourquoi ça n'avait pas fonctionné ? Si tu avais à le convaincre aujourd'hui, qu'est-ce tu ferais différent ?

Appendix B6: Session plan 6 on “A mock job interview”

Séance 6 - [tt_2] et [tt_6]

L'ENTRETIEN D'EMBAUCHE

Introduction :

Durée : 5 minutes (selon les apprenants)

-Salut, comment tu vas ? C'est bientôt Noël, y'a-t-il déjà des décorations à Dublin ? Comment ça se prépare ? Est-ce que tu as prévu quelque chose de spécial ?/ C'est la dernière séance !
Te souviens-tu de ce qu'on a fait la semaine dernière ? On a parlé de la mise en place d'un projet et de la façon de le mettre en place (marketing etc.)

Cette semaine, vu que c'est notre dernière conversation ensemble, on va parler de l'étape finale, super importante : l'entretien d'embauche !

On va vous demander de réutiliser tout ce qu'on a vu jusqu'à présent pour réussir votre entretien d'embauche. (Mobiliser connaissances acquises lors des séances précédentes, à savoir le bon registre de langue, la politesse, parler de ses compétences, proposer des idées etc.)

Activité 1 : Simulation d'entretien d'embauche

Durée : 20 minutes

- Je suis un recruteur de l'entreprise (l'Oréal / **personnalisation possible selon les cas**) et je recherche un * cadre * pouvant travailler dans le **service ou département : marketing/relations clients/ressources humaines/comptabilité ou services financiers/logistiques/achats etc.**

- Bonjour. Pouvez-vous me parler un peu de vous ?
- (*Se présenter brièvement, évoquer son parcours académique et professionnel de façon claire, concise et structurée*)
- Pourquoi avez-vous choisi ce département/division/service ?
- *Parler de ses préférences, montrer sa connaissance de l'entreprise*
- En quoi votre parcours professionnel est-il un atout pour ce poste ?
- *Mettre en avant ses aptitudes, ses compétences*
- Qu'est-ce que vous pouvez apporter à l'entreprise ?
Faire le lien entre son parcours et le profil recherché par l'entreprise. Savoir se valoriser.
- Auriez-vous des questions à poser, des choses à ajouter ?
Montrer de l'intérêt, de la curiosité, de la motivation. Parler de ses passions, de ses activités ?

Activité 2 : Feedback

- Durée : 5 minutes

Qu'as-tu / avez-vous pensé de cet entretien ?

- Commencer par ce qui était positif... dire ce qui pourrait être amélioré.
- **Conclusion (Durée : 5 minutes)**
Bilan de séances : qu'est-ce qu'on pourrait améliorer ? Qu'est-ce qu'on changerait si on recommençait ? Qu'est-ce que vous garderiez ?
Vous êtes-vous sentis assez : encouragé(e)s ? Soutenu(e)s ? Suivi(e)s ?

Appendix C: Codes and descriptions of designed and emerging online actions

Appendix C: Table-Designed and emerging pedagogical, linguistic and technological actions and interaction breakdown types

| Designed and Emerging Actions | Codes | Description |
|-------------------------------|-------------------|--|
| Designed inter-action | DLA(M)01_S6 | Social chitchat + Instruction to mobilise whatever they have learnt the past sessions to do the mock interview |
| | DLA(M)02_S6 | Mock interview questions Role play |
| | DLA(M)03_S6 | Feedback on interview |
| | DLA(M)04_S6 | Solicit student feedback on the online sessions |
| | DLAmT102_ANT/DLP | Instruction type: Announces New Task (designed lesson plan) |
| Emerging inter-action | E/DLAM01 | Greetings and Fixing sound (before session) |
| | E/DLAM02 | Improvised Small Talk/Social Interaction |
| | E/DLAM04 | Link to tutees' learning environment & curriculum |
| | E/DLAM05 | Tutor/Student links designed question to tutees' & tutors' own life context |
| | E/DLAM06FS_L | Co-constructing linguistic/thematic explanation in the interaction |
| Focus Shifts | E/DLAM06FS_MTA | Focus shift: Managing technical affordances (e.g. Webcam, mic, video, image on screen) |
| Focus Shifts | E/DLAM06FS_MTP | Focus shift: Managing technical problems |
| | E/DLAM06FS_T/SI | Tutor initiated theme change/co-constructed social interaction on Tutees'/Tutor's Life/Culture/Likes |
| | E/DLAM06FS_SIQ/IC | Student initiated theme change/co-constructed interaction on intercultural theme etc. |
| | E/DLAM08 | End of session exchange |
| | E/DLAM10 | Meta_Instruction/Feedback_Bilan/Discussion on L2 |

Appendix C: Table-Designed and emerging pedagogical, linguistic and technological actions and interaction breakdown types

| Designed and Emerging Actions | Codes | Description |
|--------------------------------------|------------------|---|
| | E/DLAM14 | Recapitulation by tutor |
| | E/DLAM18 | Scaffolding=Tutor encourages deeper more reflective answers |
| | ELAmT106_MIMA | Instruction (Meta): connects with macro module level needs |
| | E/DLAmT120_QSLE | Question on theme/type: Tutees' Learning Environment & Learning preferences |
| | E/DLAmT121_QSWE | Question on theme/type: Tutees' Work Experience |
| | E/DLAmT122_QSWEF | Question on theme/type: Tutees' Work Experience in France |
| | E/DLAmT124_QSLC | Question on theme/type: Tutees' Life/Cultural Context |
| | E/DLAmT126_CK | Question on theme/type: Checks Knowledge |
| | E/DLAmT128_QUSO | Question theme: Tutor tries to understand student curriculum objectives/constraints |
| | E/DLAmT129_QSFB | Question type: Tutor asks student for feedback |
| | ELAmT130_QSPC | Question Theme: Tutees' professional competence |
| | ELAmT131_QSPQ | Question Theme: Tutees' personal qualities |
| | ELAmT132_EQI | Question type: Emerging Question from Interaction |
| | ELAmT180_HSC+ | Scaffolding: Encourages Complexification/Hedging Strategy |
| | ELAmT182_Cl+ | Scaffolding: Encourages clarification |
| | ELAmT184_ESQ | Scaffolding: Encourages Student to Question (linguistic or thematic) |
| | ELAmT186_ESHP | Scaffolding: Encourages Student to Help Peer (linguistic or thematic) |
| | ELAmT188_FEM | Scaffolding: Encourages Free Expression based on Material/Video |
| | ELAmT190_DI | Scaffolding: Encourages Debate of Ideas |
| | ELAmT192_ESR | Scaffolding: Encourages Tutees to Recap |
| | ELAmT198_ESCP | Scaffolding: Encourages Student to collaborate with Peer (linguistic or thematic) |

Appendix C: Table-Designed and emerging pedagogical, linguistic and technological actions and interaction breakdown types

| Designed and Emerging Actions | Codes | Description |
|--------------------------------------|------------------|--|
| | ELAmS272_UpTR | Student repetition affords Temporary uptake and reutilisation by student |
| Tutor actions | DLaMT100_ALO | Instruction type: Announces Lesson Objective |
| | DLaMT102_ANT/DSP | Instruction type: Announces New Task (designed session plan) |
| | ELAmT104_MI | Instruction (Meta): bilan/communication (subpart of ELA10S) |
| | ELAmT106_MIMA | Instruction (Meta): connects with macro module level needs |
| | ELAmT108_TClo | Instruction type: Turn-Closing |
| | ELAmT110_TG | Instruction type: Turn-Giving |
| | ELAmT112_Fof | Instruction type: Focus on form |
| | E/DLaMT120_QSLE | Question on theme/type: Tutees' Learning Environment & Learning preferences |
| | E/DLaMT121_QSWE | Question on theme/type: Tutees' work experience |
| | E/DLaMT122_QSWEF | Question on theme/type: Tutees' Work Experience in France |
| | E/DLaMT124_QSLC | Question on theme/type: Tutees' Life/Cultural Context |
| | ELAmT125_QSPC | Question Theme: Tutees' professional competences |
| | E/DLaMT126_CK | Question on theme/type: Checks Knowledge |
| | ELAmT127_QSPQ | Question Theme: Tutees' personal qualities |
| | E/DLaMT128_QUSO | Question type: Tutor tries to understand student curriculum objectives/constraints |
| | E/DLaMT129_QSFB | Question type: Tutor asks student for feedback |
| | ELAmT130_RefQLP | Question type: Reformulated Question from Lesson Plan |
| | ELAmT132_EQI | Question type: Emerging Question from Interaction |
| | ELAmT134_RepQLP | Question type: Repeats Question from Lesson Plan |

Appendix C: Table-Designed and emerging pedagogical, linguistic and technological actions and interaction breakdown types

| Designed and Emerging Actions | Codes | Description |
|--------------------------------------|------------------|--|
| | ELAmT136_CC | Question type: Checks Student Comprehension |
| | ELAmT138_QI | Question type: Question Incomprehension |
| | ELAmT139_SQ | Question type: Simplifies Question Strategy |
| | ELAmT140_FRSP | Response theme/type: Friendly/Humorous Discussion/Reaction to Student Production |
| | ELAmT142_CFKB | Response theme/type: Knowledge-based utterance |
| | ELAmT144_LDOC | Response theme/type: Tutor's own life/sociocultural context (subpart of ELAM06FS_T/SI_S2__SamiaTR) |
| | ELAmT146_MMR | Response theme/type: Managing Mode/Material (subpart of ELAM06FS_MTA/P_S2_SamiaTR) |
| | ELAmT148_TRI | Response theme/type: Tutor recaps the interaction that emerges during the session |
| | ELAmT150_SS | Response theme/type: Salutations (subpart of ELA01) |
| | ELAmT152_BCh | Response type: Back channelling |
| | ELAmT154_THes | Response type: Tutor hesitation/takes time to think |
| | ELAmT156_CM | Response type: Clarifying a misunderstanding |
| | ELAmT158_RG | Response type: Response to Gesture |
| | ELAmT160_RSQ | Response type: Response to Student Question |
| | ELAmT162_FLG | Response type: Fills in the Silence |
| | ELAmT164_SSR | Response type: Silence for Student Reflection |
| | ELAmT166_SSU | Response type: Stops to allow student utterance |
| | ELAmT170_CFBS | Corrective Feedback Synonym |
| | ELAmT172_CFBR | Corrective Feedback Recast/Repetition |
| | ELAmT173_CFB_FoF | Corrective Feedback Focus on Form |
| | ELAmT174_CFB_V/P | Corrective Feedback Vocab/pronunciation |

Appendix C: Table-Designed and emerging pedagogical, linguistic and technological actions and interaction breakdown types

| Designed and Emerging Actions | Codes | Description |
|--------------------------------------|-------------------------|--|
| | ELAmT175_CFB | Corrective Feedback Explanation |
| | ELAmT176_CFBT (Fr->Eng) | Corrective Feedback Translation (French to English) |
| | ELAmT178_CFBT (Eng->Fr) | Corrective Feedback Translation (English to French) |
| | ELAmT179_FBPV | Positive Feedback |
| | ELAmT180_HSC+ | Scaffolding: Encourages Complexification/Hedging Strategy |
| | ELAmT182_CI+ | Scaffolding: Encourages clarification |
| | ELAmT184_ESQ | Scaffolding: Encourages Student to Question (linguistic or thematic) |
| | ELAmT186_ESHP | Scaffolding: Encourages Student to Help Peer (linguistic or thematic) |
| | ELAmT188_FEM | Scaffolding: Encourages Free Expression based on Material/Video |
| | ELAmT190_DI | Scaffolding: Encourages Debate of Ideas |
| | ELAmT192_ESR | Scaffolding: Encourages Tutees to Recap |
| | ELAmT194_RSPV | Scaffolding: Repeats/Adds on Student Production to Verify or for Corrective Feedback |
| | ELAmT196_TRPFC | Scaffolding: Repeats/Adds on own Production to facilitate student comprehension |
| | ELAmT198_ESCP | Scaffolding: Encourages Student to collaborate with Peer (linguistic or thematic) |
| | ELAmT199_ESGC | Scaffolding: Encourages Student to Guess from Context |
| Student_A actions | ELAmA200_SI | Response Theme: Greetings |
| | ELAmA202_RSLE | Response Theme: Student's Learning Environment |
| | ELAmA204_SCM | Response Theme: Showing comprehension of material |
| | ELAmA205_RSPC | Response Theme: Student's professional competences |
| | ELAmA206_RSLC | Response Theme: Student's Life/Sociocultural context |

Appendix C: Table-Designed and emerging pedagogical, linguistic and technological actions and interaction breakdown types

| Designed and Emerging Actions | Codes | Description |
|--------------------------------------|--|---|
| Student_A actions | ELAmA207_RSPQ | Response Theme: Student's personal qualities |
| | ELAmA208_RSWEF | Response Theme: Student work experience in France |
| | ELAmA209_Fof | Response Theme: Focus on Form |
| | ELAmA210_SRQ | Response type: Simple Response to Question (Yes/No) |
| | ELAmA212_RRQ | Response type: Reasoned Response to Question |
| | ELAmA214_DRQ | Response type: Descriptive Response to Question |
| | ELAmA216_RKB | Response type: Knowledge/experience-Based Response |
| | ELAmA218_ROB | Response type: Opinion-Based Response |
| | ELAmA220_REB | Response type: Emotion-based Response |
| | ELAmA222_DI | Response type: Debate of Ideas |
| | ELAmA224_RR | Response type: Clarification/Reformulates Response |
| | ELAmA230_NRKB | Response Type: No Response Knowledge_Based |
| | ELAmA232_NRCB | Response Type: No Response Competence_Based |
| | ELAmA233_CSW_S6 | Response type: code_switching |
| | ELAmA234_B2I_S6 | Response type: Student tries to reformulate in B2 Interlanguage |
| | ELAmA236_ILH | Response Type: Interlanguage hesitation |
| | ELAmA238_IRQ | Response type: Incorrect Response to Question |
| | ELAmA239_IP | Response type: Incorrect Pronunciation |
| | ELAmA240_RG | Response type: Response to Gesture |
| | ELAmA242_CoC | Response type: Confirm Comprehension |
| ELAmA244_VNM | Response type: Affirmation of understanding of other/co-constructed meaning (when tutor or peer understands) | |

Appendix C: Table-Designed and emerging pedagogical, linguistic and technological actions and interaction breakdown types

| Designed and Emerging Actions | Codes | Description |
|--------------------------------------|---------------|--|
| | ELAmA246_MMR | Response type: Material Management/Repeats |
| | ELAmA248_RPI | Response type: Recapitulates Points of the Interaction |
| | ELAmA250_RCF | Response type: Repeats Corrective Feedback |
| | ELAmA252_BCh | Response Type: Back channelling |
| | ELAmA254_TT | Response type: takes Time to Think |
| | ELAmA256_TPR | Response Type: Takes up form Peer's Response |
| | ELAmA260_RWS | Response type: Takes initiative to respond without solicitation |
| | ELAmA262_ATC | Response type: Auto-Correction |
| | ELAmA264_AE | Response type: Auto_Evaluation |
| Student_A actions | ELAmA266_FBB | Response type: Feedback on Bilan |
| | ELAmA268_PFB | Response type: Positive Feedback |
| | ELAmA270_ATT | Response type: Student Asks for more Time to Think |
| | ELAmA272_UpTR | Response type: Temporary uptake and reutilisation by student |
| | ELAmA280_RCo+ | Response Type: Complexification of response |
| | ELAmA282_MIU | Student Material Initiated Utterance (before tutor's question) |
| | ELAmA284_IIP | Initiates Interaction/Explanation Helps Peer |
| | ELAmA286_FRSP | Response type: Friendly/Humorous Discussion/Reaction to tutor |
| | ELAmA290_LS/I | Question type: Lexical Search/Incomprehension/Asks for help |
| | ELAmA292_SIQ | Question type: Student Initiated Question (on proposed theme or new theme) |
| | ELAmA294_MLQ | Question type: Macro level question |
| | ELAmA296_SFB | Question type: Searching feedback |

Appendix C: Table-Designed and emerging pedagogical, linguistic and technological actions and interaction breakdown types

| Designed and Emerging Actions | Codes | Description |
|--------------------------------------|-------------------|---|
| Student_C actions | ELAmC300_SI | Response Theme: Greetings |
| | ELAmC302_RSLE | Response Theme: Student's Learning Environment |
| | ELAmA304_SCM | Response Theme: Showing comprehension of material |
| | ELAmC305_RSPC | Response Theme: Student's professional competences |
| | ELAmC306_RSLC | Response Theme: Student's Life/Sociocultural context |
| | ELAmC307_RSWEF | Response Theme: Student work experience in France |
| | ELAmC308_RSPQ | Response Theme: Student's personal qualities |
| | ELAmC309_Fof | Response Theme: Focus on Form |
| | ELAmC310_SRQ | Response Type: Simple Response to Question (Yes/No) |
| | ELAmC312_RRQ | Response type: Reasoned Response to Question |
| | ELAmC314_DRQ | Response type: Descriptive Response to Question |
| | ELOSC316_RKB | Response type: Knowledge/experience-Based Response |
| | ELAmC318_ROB | Response type: Opinion-Based Response |
| | ELAmC320_REB | Response type: Emotion-Based Response |
| | Student_C actions | ELAmC322_DI |
| ELAmC323_RCo+ | | Response Type: Complexification of response |
| ELAmC324_RR | | Response type: Clarification/Reformulates Response |
| ELAmC330_NRKB | | Response Type: No Response Knowledge_Based |
| ELAmC332_NRCB | | Response type: No Response Competence_Based |
| ELAmC334_B2I | | Response type: Student tries to reformulate in B2 Interlanguage |

Appendix C: Table-Designed and emerging pedagogical, linguistic and technological actions and interaction breakdown types

| Designed and Emerging Actions | Codes | Description |
|--------------------------------------|---------------|--|
| | ELAmC336_CSW | Response type: code_switching |
| | ELAmC338_ILH | Response type: Interlanguage hesitations |
| | ELAmC340_IRQ | Response type: Incorrect Response to Question |
| | ELAmC342_IP | Response type: Incorrect Pronunciation |
| | ELAmC350_RG | Response type: Response to Gesture |
| | ELAmC352_CoC | Response type: Confirm Comprehension |
| | ELAmC354_VNM | Response type: Affirmation of understanding of other/co-constructed meaning (when tutor or peer understands) |
| | ELAmC356_MMR | Response type: Material Management/Repeats |
| | ELAmC358_BCh | Response type: Back channelling |
| | ELAmC360_TT | Response type: takes Time to Think |
| | ELAmC362_RCF | Response type: Repeats Corrective Feedback |
| | ELAmC364_RPR | Response type: Repeats/Adds on Peer Student's Response |
| | ELAmC370_IIP | Response type: Initiates Interaction with Peer |
| | ELAmC372_RWS | Response type: Takes initiative to respond without solicitation |
| | ELAmC374_RPI | Response type: Recapitulates Points of the Interaction |
| | ELAmC376_ATC | Response type: Auto-Correction |
| | ELAmC378_AE | Response type: Auto_Evaluation |
| | ELAmC380_FBB | Response type: Feedback on Bilan |
| | ELAmC382_PFB | Response type: Positive Feedback |
| | ELAmC384_UpTR | Response type: Temporary uptake and reutilisation by student |
| | ELAmC390_LS/I | Question type: Lexical Search/Incomprehension/Asks for help |

Appendix C: Table-Designed and emerging pedagogical, linguistic and technological actions and interaction breakdown types

| Designed and Emerging Actions | Codes | Description |
|--------------------------------------|---------------------|---|
| | ELAmC392_SIQ | Question type: Student Initiated Question (on proposed theme or new theme) |
| Technological operations | DTOT_T&TA(chat)/T | Designed Technological Operation_Traceability&Temporal Affordance_Tutor_initiated |
| | DTOT_T&TA(chat)/A | Designed Technological Operation_Traceability&Temporal Affordance_A_initiated |
| | DTOT_T&TA(chat)/C | Designed Technological Operation_Traceability&Temporal Affordance_C_initiated |
| | DTOT_I&CA/T | Designed Technological Operation_Info&Comm Affordance_Tutor_initiated |
| | DTOT_I&CA/A | Designed Technological Operation_Info&Comm Affordance_A_initiated |
| | DTOT_I&CA/C | Designed Technological Operation_Info&Comm Affordance_C_initiated |
| | DTOT_N&SA/T | Designed Technological Operation_Navigational&Spatial Affordance_Tutor_initiated |
| | DTOT_N&SA/A | Designed Technological Operation_Navigational&Spatial Affordance_A_initiated |
| | DTOT_N&SA/C | Designed Technological Operation_Navigational&Spatial Affordance_C_initiated |
| | DTOT_T&TA(marker)/T | Designed Technological Operation_Traceability&Temporal Affordance_Tutor_initiated |
| Interaction_breakdowns_resolutions | ECB500_TI | Tutor Incomprehension |
| | ECB502_SI | Student Incomprehension |
| | ECB504_TP | Technological Problem |
| | ECB506_SSO | Subject Student Object: Mismatch between task object and curriculum objectives |
| | ECB508_LTT | Lack of Time to Think & express in L2/Lack of student competence to complexify spoken interaction |
| | ECB510_FS | Focus Shifts (what type?) |
| | ECB512_TUDI | Tutor unable to dissipate student incomprehension |
| | ECB514_TTT | tutor talks too much and monopolises floor time |

Appendix C: Table-Designed and emerging pedagogical, linguistic and technological actions and interaction breakdown types

| Designed and Emerging Actions | Codes | Description |
|--------------------------------------|--------------|--|
| | ECB516_TSSU | tutor student superposition of utterance. expression blocked for student |
| | ECB518_LST | Lack of smooth transition by tutor between designed questions |
| | ECB520_Fof | Focus on Form |
| Example designed inter-action S4 | DLA(M)01_S4 | Social_chichat + Questions on bilan |
| | DLA(M)02a_S4 | Role play b'day party project proposal: Brainstorming things to do |
| Example designed inter-action S4 | DLA(M)02b_S4 | Recap all points on chat by student/tutor |
| | DLA(M)02c_S4 | Prioritising the order of things to do |
| | DLA(M)03_S4 | Evaluate the benefits and disadvantages of group work |
| | DLA(M)04_S4 | Define qualities and skills of a manager |
| | DLA(M)05_S4 | How to motivate employees in a company? |
| | DLA(M)06_S4 | French companies' strategies to motivate employees |

Appendix D: Emerging online tutor-tutee interactions (%)

Appendix D: Table - Emerging online tutor-tutee interactions (%)

| Categories | Adele_S1% | Emilie_S1% | Melissa_S1% | Samia_S1% | Adele_S2% | Emilie_S2% | Melissa_S2% | Samia_S2% | Adele_S3% | Emilie_S3% | Melissa_S3% | Samia_S3% |
|------------|-----------|------------|-------------|-----------|-----------|------------|-------------|-----------|-----------|------------|-------------|-----------|
| CSII Total | 32.84 | 16.28 | 26.97 | 16.98 | 6.54 | 11.59 | 33.33 | 20.18 | 17.14 | 10.00 | 17.72 | 7.41 |
| CLTE Total | 25.37 | 30.23 | 32.58 | 35.85 | 24.30 | 30.43 | 17.12 | 15.79 | 18.57 | 37.50 | 25.32 | 3.70 |
| FS Total | 8.96 | 20.93 | 8.99 | 15.09 | 2.80 | 0.00 | 2.70 | 2.63 | 10.00 | 7.50 | 15.19 | 9.26 |
| LEC Total | 4.48 | 0.00 | 1.12 | 0.00 | 28.97 | 1.45 | 2.70 | 12.28 | 24.29 | 10.00 | 17.72 | 14.81 |
| P2P Total | 0.00 | 0.00 | 4.49 | 3.77 | 2.80 | 0.00 | 7.21 | 0.00 | 7.14 | 0.00 | 0.00 | 27.78 |
| PT Total | 10.45 | 9.30 | 6.74 | 5.66 | 9.35 | 30.43 | 7.21 | 7.89 | 17.14 | 27.50 | 8.86 | 3.70 |
| CSCP Total | 14.93 | 20.93 | 19.10 | 22.64 | 12.15 | 14.49 | 23.42 | 17.54 | 5.71 | 7.50 | 8.86 | 11.11 |
| WE Total | 2.99 | 2.33 | 0.00 | 0.00 | 13.08 | 11.59 | 6.31 | 23.68 | 0.00 | 0.00 | 6.33 | 22.22 |
| Categories | Adele_S4% | Emilie_S4% | Melissa_S4% | Samia_S4% | Adele_S5% | Emilie_S5% | Melissa_S5% | Samia_S5% | Adele_S6% | Emilie_S6% | Melissa_S6% | |
| CSII Total | 11.76 | 19.44 | 11.90 | 1.75 | 28.38 | 10.87 | 6.15 | 10.61 | 11.11 | 2.86 | 14.71 | |
| CLTE Total | 29.41 | 30.56 | 26.19 | 22.81 | 25.68 | 30.43 | 30.77 | 24.24 | 53.33 | 28.57 | 32.35 | |
| FS Total | 3.92 | 13.89 | 16.67 | 12.28 | 8.11 | 13.04 | 27.69 | 6.06 | 4.44 | 5.71 | 1.47 | |
| LEC Total | 11.76 | 13.89 | 4.76 | 10.53 | 0.00 | 4.35 | 3.08 | 0.00 | 13.33 | 0.00 | 4.41 | |
| P2P Total | 5.88 | 0.00 | 7.14 | 10.53 | 2.70 | 0.00 | 1.54 | 1.52 | 0.00 | 0.00 | 0.00 | |
| PT Total | 11.76 | 5.56 | 16.67 | 19.30 | 18.92 | 10.87 | 18.46 | 7.58 | 6.67 | 25.71 | 16.18 | |
| CSCP Total | 25.49 | 8.33 | 16.67 | 22.81 | 16.22 | 30.43 | 12.31 | 50.00 | 11.11 | 31.43 | 22.06 | |
| WE Total | 0.00 | 8.33 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 5.71 | 8.82 | |

Appendix E: Tutor-enacted pedagogico-socio-linguistic actions

Appendix E: Table 1 - Tutor-enacted pedagogical and linguistic actions (%) for sessions 1, 2 and 3

Appendix E: Table 1 - Tutor-enacted pedagogical and linguistic actions (%) for sessions 1, 2 and 3

| Annotation for tutor actions | Adele_S1% | Emilie_S1% | Melissa_S1% | Samia_S1% | Adele_S2% | Emilie_S2% | Melissa_S2% | Samia_S2% | Adele_S3% | Emilie_S3% | Melissa_S3% | Samia_S3% |
|------------------------------|-----------|------------|-------------|-----------|-----------|------------|-------------|-----------|-----------|------------|-------------|-----------|
| DlAmT100_ALO | 0.28 | 0.50 | 0.70 | 0.00 | 0.00 | 0.91 | 1.10 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| DlAmT102_ANT/DSP | 1.70 | 2.48 | 3.50 | 4.85 | 3.98 | 5.91 | 5.51 | 9.85 | 0.00 | 4.83 | 3.05 | 4.60 |
| ELAmT104_MI | 1.14 | 0.99 | 0.70 | 0.44 | 1.59 | 1.36 | 5.51 | 2.46 | 6.25 | 2.76 | 1.02 | 4.02 |
| ELAmT106_MIMA | 0.28 | 0.50 | 0.00 | 0.00 | 1.99 | 0.00 | 0.37 | 1.97 | 5.00 | 0.69 | 3.05 | 1.72 |
| ELAmT108_Tclo | 1.42 | 3.47 | 4.90 | 2.20 | 1.20 | 7.73 | 2.21 | 4.93 | 1.25 | 4.14 | 2.03 | 2.30 |
| ELAmT110_TG | 5.97 | 2.48 | 7.34 | 5.73 | 6.37 | 9.09 | 5.88 | 0.00 | 1.88 | 6.90 | 0.00 | 0.00 |
| ELAmT112_Fof | 0.00 | 0.00 | 0.35 | 0.00 | 0.40 | 1.82 | 0.37 | 0.49 | 0.00 | 6.21 | 3.05 | 3.45 |
| E/DlAmT120_QSLE | 0.85 | 0.00 | 1.40 | 0.00 | 0.80 | 0.00 | 1.47 | 0.49 | 1.25 | 1.38 | 4.06 | 3.45 |
| E/DlAmT121_QSWE | 0.00 | 0.00 | 0.00 | 0.00 | 1.99 | 2.27 | 4.04 | 3.94 | 0.00 | 0.00 | 1.52 | 0.00 |
| E/DlAmT122_QSWEF | 0.28 | 0.00 | 0.00 | 0.00 | 0.40 | 0.45 | 0.37 | 0.49 | 5.63 | 0.00 | 0.00 | 0.00 |
| E/DlAmT123_QSMA | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| E/DlAmT124_QSLC | 7.67 | 1.98 | 3.85 | 2.20 | 1.20 | 0.45 | 5.15 | 1.97 | 0.00 | 4.14 | 1.52 | 2.87 |
| E/DlAmT126_CK | 1.14 | 4.95 | 1.05 | 3.52 | 0.00 | 1.36 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| E/DlAmT128_QUSO | 0.00 | 0.00 | 0.00 | 0.00 | 1.99 | 0.00 | 1.10 | 0.49 | 3.13 | 0.69 | 1.52 | 1.72 |
| E/DlAmT129_QSFB | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.10 | 0.00 | 1.25 | 0.69 | 1.52 | 1.72 |

Appendix E: Table 1 - Tutor-enacted pedagogical and linguistic actions (%) for sessions 1, 2 and 3

| Annotation for tutor actions | Adele_S1% | Emilie_S1% | Melissa_S1% | Samia_S1% | Adele_S2% | Emilie_S2% | Melissa_S2% | Samia_S2% | Adele_S3% | Emilie_S3% | Melissa_S3% | Samia_S3% |
|------------------------------|-----------|------------|-------------|-----------|-----------|------------|-------------|-----------|-----------|------------|-------------|-----------|
| ELAmT130_RefQLP | 2.56 | 2.48 | 1.05 | 3.96 | 1.99 | 4.55 | 1.84 | 4.93 | 0.00 | 4.14 | 0.51 | 2.30 |
| ELAmT132_EQI | 3.69 | 2.97 | 4.20 | 1.32 | 12.75 | 1.36 | 12.50 | 7.39 | 6.25 | 4.14 | 5.58 | 4.60 |
| ELAmT134_RepQLP | 1.70 | 4.95 | 2.45 | 7.93 | 1.59 | 2.73 | 0.37 | 0.99 | 0.00 | 2.76 | 0.00 | 4.02 |
| ELAmT136_CC | 3.13 | 5.45 | 3.50 | 4.41 | 4.38 | 5.91 | 0.74 | 0.99 | 0.00 | 0.69 | 0.51 | 2.87 |
| ELAmT138_QI | 4.83 | 1.49 | 1.40 | 1.76 | 4.38 | 0.45 | 3.31 | 3.45 | 4.38 | 0.00 | 0.51 | 2.30 |
| ELAmT139_SQ | 0.57 | 0.00 | 0.35 | 1.32 | 0.00 | 0.45 | 0.37 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| ELAmT140_FRSP | 13.07 | 1.98 | 3.15 | 1.76 | 12.75 | 4.55 | 1.10 | 3.45 | 3.75 | 8.28 | 0.51 | 0.00 |
| ELAmT142_CFKB | 2.27 | 0.99 | 2.10 | 3.52 | 0.80 | 2.27 | 0.37 | 1.97 | 5.00 | 4.83 | 4.06 | 0.57 |
| ELAmT144_LDOC | 1.70 | 0.00 | 1.05 | 0.44 | 1.59 | 2.73 | 1.10 | 2.96 | 1.88 | 0.69 | 4.57 | 1.15 |
| ELAmT150_SS | 1.14 | 1.98 | 1.75 | 0.88 | 1.59 | 0.91 | 1.47 | 0.49 | 1.25 | 2.07 | 2.03 | 1.72 |
| ELAmT152_BCh | 11.65 | 8.91 | 10.84 | 11.01 | 3.98 | 13.64 | 15.07 | 17.73 | 13.13 | 13.10 | 26.40 | 4.02 |
| ELAmT154_Thes | 0.57 | 0.00 | 1.75 | 0.44 | 1.59 | 0.45 | 1.84 | 0.49 | 0.00 | 0.00 | 2.54 | 0.00 |
| ELAmT156_CM | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.84 | 0.00 | 0.63 | 0.00 | 0.00 | 1.72 |
| ELAmT158_RG | 0.00 | 0.00 | 0.00 | 0.44 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| ELAmT160_RSQ | 0.00 | 0.50 | 0.35 | 0.88 | 0.80 | 0.00 | 1.47 | 0.00 | 0.00 | 0.00 | 0.00 | 0.57 |
| ELAmT162_FLG | 0.28 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.38 | 0.00 | 0.00 |
| ELAmT164_SSR | 1.42 | 3.96 | 1.40 | 4.85 | 0.00 | 1.82 | 0.37 | 0.00 | 0.00 | 4.14 | 0.00 | 1.15 |
| ELAmT166_SSU | 0.00 | 0.99 | 0.35 | 0.44 | 0.00 | 0.91 | 0.00 | 0.49 | 1.88 | 0.69 | 0.00 | 0.00 |
| ELAmT170_CFBS | 1.14 | 0.00 | 0.00 | 1.32 | 0.80 | 0.00 | 0.37 | 0.99 | 0.63 | 0.00 | 0.00 | 0.00 |
| ELAmT172_CFBR | 0.57 | 0.50 | 0.35 | 2.20 | 0.40 | 0.45 | 0.00 | 1.48 | 0.63 | 0.69 | 1.02 | 0.00 |
| ELAmT173_CFB_FoF | 0.00 | 0.00 | 0.00 | 0.00 | 0.40 | 0.00 | 1.10 | 1.48 | 0.00 | 1.38 | 0.51 | 0.57 |

Appendix E: Table 1 - Tutor-enacted pedagogical and linguistic actions (%) for sessions 1, 2 and 3

| Annotation for tutor actions | Adele_S1% | Emilie_S1% | Melissa_S1% | Samia_S1% | Adele_S2% | Emilie_S2% | Melissa_S2% | Samia_S2% | Adele_S3% | Emilie_S3% | Melissa_S3% | Samia_S3% |
|---------------------------------|-----------|------------|-------------|-----------|-----------|------------|-------------|-----------|-----------|------------|-------------|-----------|
| ELAmT174_CFB_V/P | 2.27 | 4.46 | 2.45 | 0.88 | 4.38 | 5.45 | 3.68 | 2.46 | 2.50 | 1.38 | 4.06 | 0.00 |
| ELAmT174_CFB_V/P(pronunciation) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.25 | 0.00 | 0.00 | 0.00 |
| ELAmT175_CFBE | 1.42 | 4.95 | 2.80 | 5.29 | 0.40 | 4.55 | 1.47 | 0.49 | 1.25 | 3.45 | 1.02 | 0.57 |
| ELAmT176_CFBT(Fr->Eng) | 0.28 | 1.49 | 0.00 | 0.00 | 1.20 | 0.45 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.57 |
| ELAmT178_CFBT(Eng->Fr) | 0.00 | 1.98 | 2.10 | 0.00 | 0.00 | 0.45 | 0.00 | 0.00 | 1.25 | 0.00 | 0.00 | 0.00 |
| ELAmT179_FBPV | 2.84 | 2.48 | 4.20 | 2.20 | 4.78 | 2.73 | 1.47 | 3.45 | 6.88 | 2.76 | 3.05 | 1.72 |
| ELAmT180_HSC+ | 2.84 | 3.47 | 3.15 | 2.64 | 0.00 | 0.00 | 0.00 | 0.49 | 0.00 | 0.00 | 0.00 | 0.00 |
| ELAmT182_CI+ | 1.70 | 0.99 | 0.70 | 0.88 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.69 | 0.00 | 2.30 |
| ELAmT184_ESQ | 0.00 | 0.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| ELAmT186_ESHP | 0.00 | 0.50 | 2.10 | 0.88 | 0.40 | 0.00 | 0.74 | 0.00 | 0.63 | 0.00 | 0.00 | 0.00 |
| ELAmT188_FEM | 0.57 | 1.49 | 0.35 | 1.76 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| ELAmT190_DI | 0.57 | 0.50 | 1.40 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.88 | 0.00 | 0.00 | 0.00 |
| ELAmT198_ESCP | 0.00 | 0.00 | 1.05 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.25 | 0.00 | 0.00 | 0.00 |
| ELAmT199_ESGC | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.36 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Appendix E: Table 2 - Tutor-enacted pedagogico-linguistic actions (%) for sessions 4, 5 and 6**Appendix E: Table 2 - Tutor-enacted pedagogical and linguistic actions (%) for sessions 4, 5 and 6**

| Annotation for tutor actions | Adele_S4% | Emilie_S4% | Melissa_S4% | Samia_S4% | Adele_S5% | Emilie_S5% | Melissa_S5% | Samia_S5% | Adele_S6% | Emilie_S6% | Melissa_S6% |
|------------------------------|-----------|------------|-------------|-----------|-----------|------------|-------------|-----------|-----------|------------|-------------|
| DlAmT100_ALO | 0.50 | 0.66 | 0.65 | 0.00 | 0.47 | 1.14 | 2.74 | 0.56 | 0.70 | 0.91 | 0.53 |
| DlAmT102_ANT/DSP | 0.99 | 3.97 | 1.30 | 2.13 | 0.94 | 5.14 | 1.37 | 2.26 | 2.11 | 1.82 | 1.07 |
| ELAmT104_MI | 3.47 | 1.32 | 5.19 | 1.06 | 2.82 | 2.29 | 2.74 | 4.52 | 1.41 | 4.55 | 0.53 |
| ELAmT106_MIMA | 4.95 | 1.99 | 1.30 | 3.72 | 1.88 | 2.86 | 3.42 | 1.13 | 2.11 | 0.00 | 2.67 |
| ELAmT108_Tclo | 2.48 | 5.96 | 3.25 | 1.60 | 0.94 | 2.86 | 0.00 | 1.13 | 0.00 | 1.82 | 2.14 |
| ELAmT110_TG | 3.47 | 5.96 | 1.95 | 5.32 | 4.69 | 7.43 | 2.05 | 1.13 | 0.70 | 2.73 | 5.35 |
| ELAmT112_Fof | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.56 | 0.70 | 0.00 | 0.00 |
| ELAmT114_INC | 0.00 | 0.00 | 0.00 | 0.53 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| E/DlAmT120_QSLE | 2.48 | 1.32 | 5.84 | 0.00 | 0.47 | 0.57 | 0.00 | 0.00 | 0.70 | 0.00 | 1.07 |
| E/DlAmT121_QSWE | 0.00 | 3.31 | 0.00 | 0.00 | 0.00 | 0.57 | 0.00 | 0.00 | 0.00 | 0.91 | 0.00 |
| E/DlAmT122_QSWEF | 0.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| E/DlAmT123_QSMA | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.41 | 0.00 | 0.53 |
| E/DlAmT124_QSLC | 2.48 | 4.64 | 1.30 | 2.66 | 5.16 | 2.29 | 0.00 | 1.69 | 0.70 | 0.91 | 5.35 |
| E/DlAmT126_CK | 0.00 | 0.00 | 0.00 | 1.06 | 3.29 | 0.00 | 2.05 | 2.26 | 0.70 | 0.00 | 0.53 |
| ELAmT127_QSPQ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.60 |
| E/DlAmT128_QUSO | 1.49 | 1.32 | 0.65 | 1.60 | 0.47 | 0.00 | 0.00 | 0.56 | 2.11 | 0.00 | 0.00 |
| E/DlAmT129_QSFB | 1.98 | 0.00 | 0.00 | 2.13 | 0.47 | 0.00 | 0.00 | 2.26 | 0.00 | 5.45 | 0.00 |
| ELAmT130_RefQLP | 0.99 | 5.96 | 3.25 | 0.53 | 0.94 | 1.14 | 4.79 | 3.39 | 0.00 | 10.91 | 3.74 |
| ELAmT132_EQI | 7.43 | 1.32 | 0.65 | 0.00 | 4.23 | 1.14 | 0.68 | 0.56 | 8.45 | 1.82 | 6.42 |

Appendix E: Table 2 - Tutor-enacted pedagogical and linguistic actions (%) for sessions 4, 5 and 6

| Annotation for tutor actions | Adele_S4% | Emilie_S4% | Melissa_S4% | Samia_S4% | Adele_S5% | Emilie_S5% | Melissa_S5% | Samia_S5% | Adele_S6% | Emilie_S6% | Melissa_S6% |
|-------------------------------------|------------------|-------------------|--------------------|------------------|------------------|-------------------|--------------------|------------------|------------------|-------------------|--------------------|
| ELAmT134_RepQLP | 0.50 | 0.00 | 0.65 | 1.06 | 0.00 | 2.29 | 0.00 | 1.13 | 0.00 | 0.91 | 1.07 |
| ELAmT136_CC | 1.98 | 2.65 | 1.95 | 5.32 | 2.35 | 4.57 | 2.05 | 3.95 | 0.70 | 0.00 | 0.53 |
| ELAmT138_QI | 1.98 | 1.99 | 2.60 | 2.66 | 8.45 | 2.29 | 2.74 | 2.82 | 3.52 | 0.91 | 2.67 |
| ELAmT139_SQ | 0.00 | 0.66 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| ELAmT140_FRSP | 1.98 | 4.64 | 0.65 | 2.66 | 7.04 | 2.86 | 1.37 | 3.95 | 3.52 | 3.64 | 4.81 |
| ELAmT142_CFKB | 0.00 | 0.00 | 0.00 | 0.53 | 3.76 | 6.29 | 0.68 | 1.13 | 7.04 | 1.82 | 3.21 |
| ELAmT144_LDOC | 0.00 | 1.99 | 0.00 | 0.00 | 5.63 | 4.00 | 2.05 | 3.95 | 0.00 | 1.82 | 6.42 |
| ELAmT146_MMR | 3.47 | 2.65 | 9.74 | 11.70 | 3.29 | 5.14 | 23.29 | 4.52 | 6.34 | 1.82 | 2.14 |
| ELAmT148_TRI | 0.50 | 0.66 | 1.30 | 0.00 | 0.00 | 0.57 | 3.42 | 1.13 | 0.70 | 0.91 | 1.60 |
| ELAmT150_SS | 1.98 | 0.66 | 0.65 | 2.13 | 1.41 | 0.57 | 2.05 | 1.69 | 0.00 | 1.82 | 0.53 |
| ELAmT152_BCh | 11.88 | 6.62 | 5.19 | 1.60 | 10.80 | 12.00 | 6.16 | 6.78 | 12.68 | 9.09 | 18.18 |
| ELAmT154_Thes | 0.50 | 0.00 | 0.65 | 0.00 | 0.00 | 0.00 | 0.00 | 0.56 | 0.70 | 0.00 | 1.07 |
| ELAmT156_CM | 0.50 | 0.00 | 0.00 | 1.06 | 0.94 | 0.00 | 0.68 | 0.00 | 0.00 | 1.82 | 0.00 |
| ELAmT158_RG | 0.00 | 0.00 | 0.00 | 0.00 | 0.47 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| ELAmT160_RSQ | 0.99 | 0.66 | 1.30 | 0.53 | 3.29 | 0.57 | 4.11 | 10.17 | 1.41 | 0.91 | 1.07 |
| ELAmT162_FLG | 0.00 | 0.66 | 3.25 | 1.06 | 0.00 | 0.57 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| ELAmT164_SSR | 2.48 | 5.30 | 0.00 | 0.53 | 1.41 | 2.86 | 0.00 | 2.26 | 0.00 | 2.73 | 0.00 |
| ELAmT166_SSU | 0.99 | 0.00 | 0.65 | 0.00 | 0.00 | 0.00 | 0.00 | 0.56 | 0.00 | 0.00 | 0.00 |
| ELAmT170_CFBS | 0.00 | 3.97 | 0.00 | 1.06 | 0.00 | 0.57 | 0.68 | 0.56 | 3.52 | 0.91 | 0.00 |
| ELAmT173_CFB_FoF | 0.00 | 0.00 | 1.95 | 0.00 | 0.47 | 0.57 | 1.37 | 0.00 | 1.41 | 0.00 | 1.60 |
| ELAmT174_CFB_V/P | 2.97 | 3.31 | 5.19 | 2.66 | 2.35 | 4.57 | 2.74 | 1.13 | 3.52 | 1.82 | 4.81 |
| ELAmT174_CFB_V/P(pronunciation) | 0.99 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.68 | 0.00 | 0.00 | 0.00 | 0.00 |

Appendix E: Table 2 - Tutor-enacted pedagogical and linguistic actions (%) for sessions 4, 5 and 6

| Annotation for tutor actions | Adele_S4% | Emilie_S4% | Melissa_S4% | Samia_S4% | Adele_S5% | Emilie_S5% | Melissa_S5% | Samia_S5% | Adele_S6% | Emilie_S6% | Melissa_S6% |
|-------------------------------------|------------------|-------------------|--------------------|------------------|------------------|-------------------|--------------------|------------------|------------------|-------------------|--------------------|
| ELAmT175_CFBE | 3.96 | 5.30 | 2.60 | 2.13 | 2.82 | 5.14 | 2.74 | 5.08 | 2.82 | 3.64 | 0.53 |
| ELAmT176_CFBT(Fr->Eng) | 0.99 | 0.66 | 0.00 | 0.00 | 1.88 | 0.57 | 0.00 | 0.00 | 0.00 | 0.91 | 0.00 |
| ELAmT178_CFBT(Eng->Fr) | 0.50 | 0.66 | 0.00 | 0.00 | 0.94 | 1.71 | 0.00 | 0.00 | 1.41 | 0.00 | 0.00 |
| ELAmT179_FBPV | 3.96 | 1.32 | 1.95 | 3.72 | 1.88 | 6.86 | 6.16 | 2.82 | 7.04 | 7.27 | 1.60 |
| ELAmT180_HSC+ | 5.94 | 3.97 | 6.49 | 6.91 | 0.47 | 0.00 | 2.05 | 3.39 | 1.41 | 0.00 | 0.00 |
| ELAmT182_CI+ | 1.49 | 0.00 | 3.90 | 0.00 | 0.00 | 0.00 | 0.00 | 1.13 | 1.41 | 0.91 | 1.07 |
| ELAmT184_ESQ | 0.50 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.68 | 2.26 | 0.00 | 0.00 | 0.00 |
| ELAmT186_ESHP | 0.50 | 0.00 | 1.95 | 1.06 | 0.47 | 0.00 | 0.00 | 0.56 | 0.00 | 0.00 | 0.00 |
| ELAmT187_ESCP | 0.00 | 0.66 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| ELAmT188_FEM | 0.00 | 1.32 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| ELAmT190_DI | 2.48 | 0.00 | 0.00 | 2.13 | 0.47 | 0.00 | 2.05 | 2.26 | 0.70 | 1.82 | 0.00 |
| ELAmT192_ESR | 0.00 | 0.66 | 0.00 | 1.60 | 0.00 | 0.00 | 0.00 | 0.56 | 0.00 | 0.00 | 0.53 |
| ELAmT194_RSPV | 9.41 | 1.32 | 12.34 | 5.85 | 11.27 | 4.00 | 5.48 | 8.47 | 9.86 | 6.36 | 8.02 |
| ELAmT196_TRPFC | 1.98 | 9.27 | 8.44 | 17.02 | 0.47 | 4.00 | 6.16 | 3.95 | 7.04 | 16.36 | 3.74 |
| ELAmT198_ESCP | 0.99 | 0.66 | 0.65 | 2.66 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Appendix F: Tutee-enacted pedagogico-linguistic actions

Appendix F: Table 1 - Tutee-enacted pedagogico-linguistic actions (%) for sessions 1, 2 and 3

Appendix F: Table 1 - Tutee-enacted pedagogical and linguistic actions (%) for sessions 1, 2 and 3

| Annotation_Tutees | Adele_S1% | Emilie_S1% | Melissa_S1% | Samia_S1% | Adele_S2% | Emilie_S2% | Melissa_S2% | Samia_S2% | Adele_S3% | Emilie_S3% | Melissa_S3% | Samia_S3% |
|-------------------|-----------|------------|-------------|-----------|-----------|------------|-------------|-----------|-----------|------------|-------------|-----------|
| ELAmS_AE Total | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.53 | 0.00 | 0.00 | 0.00 |
| ELAmS_ATC Total | 1.17 | 0.63 | 0.36 | 0.69 | 2.30 | 3.09 | 0.78 | 2.21 | 1.07 | 1.74 | 1.27 | 1.33 |
| ELAmS_B2I Total | 0.00 | 0.63 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.67 |
| ELAmS_BCh Total | 2.35 | 7.50 | 3.20 | 3.45 | 0.92 | 8.25 | 3.53 | 2.76 | 6.42 | 6.96 | 19.11 | 8.00 |
| ELAmS_CoC Total | 4.40 | 15.63 | 7.12 | 8.28 | 3.69 | 5.15 | 1.96 | 2.21 | 0.53 | 3.48 | 1.91 | 2.00 |
| ELAmS_CSW Total | 0.00 | 2.50 | 1.42 | 2.07 | 0.00 | 2.06 | 0.78 | 0.00 | 1.07 | 1.74 | 1.27 | 1.33 |
| ELAmS_DI Total | 0.59 | 0.00 | 0.71 | 0.00 | 2.76 | 4.12 | 1.18 | 6.08 | 2.67 | 0.00 | 1.27 | 0.00 |
| ELAmS_DRQ Total | 10.26 | 6.25 | 9.25 | 2.76 | 17.97 | 9.79 | 20.78 | 17.13 | 8.02 | 13.04 | 10.83 | 6.00 |
| ELAmS_FBB Total | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.35 | 0.00 | 1.07 | 0.00 | 1.27 | 0.67 |
| ELAmS_Fof Total | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.18 | 0.00 |
| ELAmS_FRSP Total | 2.35 | 0.00 | 1.07 | 0.00 | 4.15 | 0.00 | 0.00 | 2.21 | 0.53 | 0.00 | 1.91 | 0.67 |
| ELAmS_IIP Total | 0.59 | 0.00 | 1.78 | 0.00 | 1.38 | 0.00 | 3.14 | 0.00 | 2.14 | 0.00 | 0.64 | 0.00 |
| ELAmS_ILH Total | 8.50 | 7.50 | 9.96 | 4.14 | 7.83 | 5.67 | 7.06 | 3.31 | 11.76 | 11.30 | 0.00 | 8.67 |
| ELAmS_IP Total | 3.52 | 0.63 | 2.14 | 2.76 | 0.00 | 3.09 | 1.18 | 0.00 | 2.14 | 0.00 | 0.00 | 2.00 |
| ELAmS_IRQ Total | 0.88 | 0.63 | 0.71 | 1.38 | 0.46 | 0.00 | 1.18 | 0.55 | 0.00 | 0.87 | 0.64 | 1.33 |
| ELAmS_LS/I Total | 5.57 | 9.38 | 8.19 | 5.52 | 5.99 | 5.67 | 4.71 | 4.42 | 4.28 | 4.35 | 5.10 | 10.00 |

Appendix F: Table 1 - Tutee-enacted pedagogical and linguistic actions (%) for sessions 1, 2 and 3

| Annotation_Tutees | Adele_S1% | Emilie_S1% | Melissa_S1% | Samia_S1% | Adele_S2% | Emilie_S2% | Melissa_S2% | Samia_S2% | Adele_S3% | Emilie_S3% | Melissa_S3% | Samia_S3% |
|-------------------|-----------|------------|-------------|-----------|-----------|------------|-------------|-----------|-----------|------------|-------------|-----------|
| ELAmS_MMR Total | 1.17 | 7.50 | 4.63 | 8.28 | 1.38 | 0.52 | 2.35 | 1.10 | 4.81 | 3.48 | 10.83 | 14.00 |
| ELAmS_NRCB Total | 0.29 | 0.63 | 2.49 | 0.69 | 0.92 | 1.55 | 0.78 | 0.55 | 0.00 | 1.74 | 0.00 | 2.67 |
| ELAmS_NRKB Total | 2.35 | 0.63 | 2.49 | 5.52 | 0.00 | 2.58 | 0.78 | 0.00 | 0.53 | 0.87 | 0.64 | 0.67 |
| ELAmS_PFB Total | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.39 | 0.00 | 2.67 | 1.74 | 0.00 | 0.67 |
| ELAmS_RCF Total | 1.76 | 1.25 | 1.78 | 4.14 | 4.61 | 3.09 | 3.92 | 3.31 | 1.60 | 1.74 | 2.55 | 2.00 |
| ELAmS_RCo+ Total | 0.29 | 0.00 | 0.71 | 0.69 | 0.00 | 0.00 | 1.57 | 2.76 | 0.00 | 0.87 | 0.00 | 0.00 |
| ELAmS_REB Total | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| ELAmS_RKB Total | 6.45 | 0.00 | 1.07 | 0.00 | 1.84 | 0.52 | 3.92 | 0.00 | 2.14 | 3.48 | 2.55 | 4.00 |
| ELAmS_ROB Total | 5.57 | 7.50 | 3.91 | 8.28 | 3.23 | 5.67 | 1.96 | 6.63 | 5.88 | 5.22 | 1.27 | 1.33 |
| ELAmS_RPR Total | 0.88 | 0.00 | 2.14 | 1.38 | 2.30 | 4.12 | 1.57 | 0.00 | 1.07 | 3.48 | 0.00 | 0.67 |
| ELAmS_RR Total | 4.11 | 1.88 | 1.78 | 0.69 | 5.07 | 2.58 | 5.10 | 1.10 | 3.74 | 0.87 | 0.64 | 2.00 |
| ELAmS_RRQ Total | 4.11 | 1.25 | 4.63 | 6.90 | 0.92 | 5.67 | 1.57 | 4.97 | 5.35 | 5.22 | 3.18 | 3.33 |
| ELAmS_RSLC Total | 9.97 | 6.88 | 8.19 | 4.14 | 3.23 | 2.58 | 4.71 | 6.63 | 0.53 | 2.61 | 3.82 | 2.00 |
| ELAmS_RSLE Total | 2.64 | 0.00 | 2.14 | 0.00 | 1.84 | 0.00 | 1.57 | 0.55 | 6.95 | 6.09 | 7.64 | 4.67 |
| ELAmS_RSPC Total | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.27 | 0.00 |
| ELAmS_RSWE Total | 0.00 | 0.00 | 0.00 | 0.00 | 4.15 | 4.64 | 3.53 | 12.15 | 0.00 | 0.00 | 0.00 | 0.00 |
| ELAmS_RSWEF Total | 0.59 | 0.00 | 0.00 | 0.00 | 0.46 | 0.00 | 0.00 | 0.55 | 0.00 | 0.00 | 0.00 | 0.00 |
| ELAmS_RWS Total | 0.00 | 0.63 | 0.71 | 0.00 | 1.38 | 0.00 | 1.96 | 0.00 | 4.28 | 8.70 | 1.91 | 3.33 |
| ELAmS_SCM Total | 0.00 | 0.00 | 0.36 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| ELAmS_SFB Total | 0.00 | 0.63 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| ELAmS_SI Total | 2.05 | 3.75 | 2.14 | 2.07 | 2.76 | 1.03 | 1.57 | 0.55 | 3.21 | 1.74 | 2.55 | 0.67 |
| ELAmS_SIQ Total | 0.00 | 0.00 | 1.07 | 1.38 | 0.92 | 0.00 | 1.57 | 0.55 | 0.00 | 0.00 | 2.55 | 1.33 |

Appendix F: Table 1 - Tutee-enacted pedagogical and linguistic actions (%) for sessions 1, 2 and 3

| Annotation_Tutees | Adele_S1% | Emilie_S1% | Melissa_S1% | Samia_S1% | Adele_S2% | Emilie_S2% | Melissa_S2% | Samia_S2% | Adele_S3% | Emilie_S3% | Melissa_S3% | Samia_S3% |
|-------------------|-----------|------------|-------------|-----------|-----------|------------|-------------|-----------|-----------|------------|-------------|-----------|
| ELAmS_SRQ Total | 8.80 | 4.38 | 7.12 | 6.21 | 11.52 | 7.73 | 10.98 | 11.05 | 8.02 | 4.35 | 7.01 | 8.00 |
| ELAmS_TPR Total | 0.00 | 0.63 | 0.36 | 0.00 | 0.46 | 0.52 | 0.39 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| ELAmS_TT Total | 3.81 | 6.25 | 3.56 | 17.93 | 2.76 | 8.25 | 0.39 | 5.52 | 4.81 | 2.61 | 3.18 | 2.67 |
| ELAmS_UpTR Total | 2.35 | 3.75 | 1.42 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| ELAmS_VNM Total | 2.35 | 1.25 | 1.42 | 0.69 | 2.76 | 2.06 | 0.78 | 1.10 | 2.14 | 1.74 | 0.00 | 3.33 |

Appendix F: Table 2 - Tutee-enacted pedagogico-linguistic actions (%) for sessions 4, 5 and 6
Appendix F: Table 2 - Tutee-enacted pedagogical and linguistic actions (%) for sessions 4, 5 and 6

| Annotation_Tutees | Adele_S4% | Emilie_S4% | Melissa_S4% | Samia_S4% | Adele_S5% | Emilie_S5% | Melissa_S5% | Samia_S5% | Adele_S6% | Emilie_S6% | Melissa_S6% |
|-------------------|-----------|------------|-------------|-----------|-----------|------------|-------------|-----------|-----------|------------|-------------|
| ELAmS_RRQ Total | 0.00 | 2.83 | 0.77 | 0.67 | 0.00 | 3.25 | 1.87 | 1.05 | 0.00 | 0.92 | 1.97 |
| ELAmS_AE Total | 0.00 | 0.00 | 0.00 | 0.67 | 1.83 | 0.00 | 0.00 | 0.52 | 0.00 | 1.83 | 0.00 |
| ELAmS_ATC Total | 2.37 | 0.94 | 0.77 | 0.67 | 1.37 | 0.00 | 1.87 | 2.09 | 0.00 | 0.92 | 0.99 |
| ELAmS_B2I Total | 0.00 | 0.00 | 0.77 | 0.67 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| ELAmS_BCh Total | 3.32 | 9.43 | 4.62 | 6.00 | 6.39 | 8.13 | 23.36 | 5.76 | 4.29 | 26.61 | 17.24 |
| ELAmS_CoC Total | 4.27 | 4.72 | 3.08 | 1.33 | 6.39 | 13.82 | 8.41 | 12.57 | 1.84 | 1.83 | 0.49 |
| ELAmS_CSW Total | 2.84 | 2.83 | 1.54 | 0.00 | 0.46 | 2.44 | 1.87 | 0.52 | 4.29 | 3.67 | 1.97 |
| ELAmS_DI Total | 1.42 | 0.94 | 1.54 | 0.67 | 2.28 | 0.81 | 0.00 | 5.24 | 0.00 | 0.92 | 0.49 |
| ELAmS_DRQ Total | 6.64 | 6.60 | 6.15 | 7.33 | 11.87 | 6.50 | 2.80 | 2.09 | 15.95 | 7.34 | 6.90 |
| ELAmS_FBB Total | 1.90 | 0.00 | 0.77 | 2.00 | 1.37 | 0.00 | 0.00 | 3.66 | 0.00 | 0.00 | 0.49 |
| ELAmS_Fof Total | 0.00 | 2.83 | 0.00 | 0.00 | 0.46 | 0.00 | 0.00 | 0.52 | 0.00 | 0.00 | 0.99 |
| ELAmS_FRSP Total | 0.47 | 0.94 | 0.00 | 0.00 | 3.20 | 0.81 | 0.00 | 0.52 | 1.23 | 0.00 | 1.48 |
| ELAmS_IIP Total | 2.37 | 0.00 | 2.31 | 8.00 | 2.28 | 0.00 | 0.00 | 2.09 | 0.00 | 0.00 | 1.48 |
| ELAmS_IIT Total | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 1.84 | 0.00 | 0.00 |
| ELAmS_ILH Total | 16.11 | 11.32 | 8.46 | 5.33 | 0.46 | 8.13 | 3.74 | 0.00 | 11.66 | 3.67 | 6.90 |
| ELAmS_IP Total | 0.47 | 0.00 | 2.31 | 0.00 | 1.37 | 0.00 | 0.00 | 0.00 | 4.91 | 0.00 | 2.46 |
| ELAmS_IRQ Total | 1.42 | 0.94 | 0.00 | 0.00 | 0.91 | 1.63 | 0.00 | 1.05 | 2.45 | 0.00 | 0.00 |
| ELAmS_LS/I Total | 3.32 | 13.21 | 10.77 | 9.33 | 3.65 | 7.32 | 8.41 | 6.28 | 4.91 | 5.50 | 5.91 |
| ELAmS_MLQ Total | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 2.80 | 0.00 | 0.00 | 0.00 | 0.00 |

Appendix F: Table 2 - Tutee-enacted pedagogical and linguistic actions (%) for sessions 4, 5 and 6

| Annotation_Tutees | Adele_S4% | Emilie_S4% | Melissa_S4% | Samia_S4% | Adele_S5% | Emilie_S5% | Melissa_S5% | Samia_S5% | Adele_S6% | Emilie_S6% | Melissa_S6% |
|--------------------------|------------------|-------------------|--------------------|------------------|------------------|-------------------|--------------------|------------------|------------------|-------------------|--------------------|
| ELAmS_MMR Total | 1.42 | 0.00 | 11.54 | 3.33 | 6.85 | 0.00 | 18.69 | 1.57 | 0.61 | 1.83 | 1.48 |
| ELAmS_NRCB Total | 0.00 | 2.83 | 0.77 | 0.67 | 0.00 | 0.81 | 0.00 | 0.52 | 2.45 | 3.67 | 0.49 |
| ELAmS_NRKB Total | 1.42 | 1.89 | 3.85 | 1.33 | 1.83 | 0.00 | 0.93 | 0.00 | 1.23 | 0.92 | 0.49 |
| ELAmS_PFB Total | 1.42 | 0.00 | 0.00 | 2.00 | 0.00 | 0.00 | 0.93 | 1.05 | 0.00 | 1.83 | 0.49 |
| ELAmS_RCF Total | 1.42 | 0.94 | 1.54 | 0.67 | 2.74 | 0.81 | 1.87 | 2.09 | 5.52 | 3.67 | 4.43 |
| ELAmS_RCo+ Total | 5.21 | 1.89 | 5.38 | 12.00 | 0.46 | 4.88 | 0.00 | 3.66 | 1.23 | 0.00 | 0.00 |
| ELAmS_RG Total | 0.00 | 0.00 | 0.00 | 0.67 | 0.00 | 1.63 | 0.00 | 0.52 | 0.00 | 0.00 | 0.00 |
| ELAmS_RKB Total | 4.74 | 0.94 | 0.00 | 2.00 | 2.28 | 0.81 | 0.00 | 1.05 | 0.00 | 0.00 | 0.00 |
| ELAmS_ROB Total | 6.64 | 13.21 | 2.31 | 0.67 | 3.20 | 7.32 | 0.00 | 2.09 | 4.29 | 3.67 | 1.48 |
| ELAmS_RPI Total | 0.47 | 0.00 | 0.77 | 4.00 | 0.00 | 0.00 | 0.00 | 3.14 | 0.00 | 0.00 | 0.49 |
| ELAmS_RPR Total | 0.95 | 0.00 | 1.54 | 0.67 | 0.46 | 0.81 | 0.00 | 2.62 | 0.00 | 0.00 | 0.49 |
| ELAmS_RR Total | 4.27 | 0.94 | 3.85 | 6.00 | 10.05 | 7.32 | 2.80 | 6.28 | 3.68 | 0.92 | 4.43 |
| ELAmS_RRQ Total | 0.47 | 2.83 | 0.00 | 1.33 | 3.20 | 1.63 | 1.87 | 3.66 | 1.84 | 0.00 | 1.97 |
| ELAmS_RSLC Total | 2.84 | 0.00 | 0.77 | 2.67 | 6.85 | 5.69 | 0.93 | 2.09 | 0.61 | 3.67 | 5.91 |
| ELAmS_RSLE Total | 3.32 | 0.00 | 7.69 | 2.00 | 0.91 | 2.44 | 0.00 | 0.52 | 1.84 | 1.83 | 2.46 |
| ELAmS_RSMM Total | 0.00 | 0.94 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.68 | 0.00 | 3.45 |
| ELAmS_RSPC Total | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 8.59 | 4.59 | 3.45 |
| ELAmS_RSWE Total | 0.00 | 4.72 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 3.67 | 4.43 |
| ELAmS_RSWEF Total | 0.95 | 0.94 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| ELAmS_RWS Total | 2.37 | 1.89 | 1.54 | 1.33 | 1.37 | 0.00 | 0.00 | 0.52 | 0.00 | 0.00 | 1.48 |
| ELAmS_SCM Total | 0.00 | 0.00 | 0.77 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| ELAmS_SFB Total | 0.47 | 0.94 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Appendix F: Table 2 - Tutee-enacted pedagogical and linguistic actions (%) for sessions 4, 5 and 6

| Annotation_Tutees | Adele_S4% | Emilie_S4% | Melissa_S4% | Samia_S4% | Adele_S5% | Emilie_S5% | Melissa_S5% | Samia_S5% | Adele_S6% | Emilie_S6% | Melissa_S6% |
|--------------------------|------------------|-------------------|--------------------|------------------|------------------|-------------------|--------------------|------------------|------------------|-------------------|--------------------|
| ELAmS_SI Total | 1.90 | 0.94 | 1.54 | 2.67 | 2.74 | 1.63 | 3.74 | 2.09 | 0.00 | 3.67 | 1.97 |
| ELAmS_SIQ Total | 3.32 | 0.00 | 0.77 | 1.33 | 3.65 | 0.81 | 4.67 | 11.52 | 3.07 | 0.92 | 6.40 |
| ELAmS_SRQ Total | 3.32 | 4.72 | 5.38 | 7.33 | 3.20 | 2.44 | 6.54 | 6.28 | 0.61 | 4.59 | 1.97 |
| ELAmS_TPR Total | 1.42 | 0.94 | 0.00 | 0.67 | 0.00 | 1.63 | 0.00 | 0.52 | 0.00 | 0.00 | 0.49 |
| ELAmS_TT Total | 3.32 | 0.00 | 0.00 | 0.67 | 1.37 | 1.63 | 1.87 | 2.62 | 4.91 | 6.42 | 1.97 |
| ELAmS_UpTR Total | 0.95 | 0.00 | 2.31 | 3.33 | 0.00 | 0.00 | 0.00 | 0.52 | 0.00 | 0.00 | 0.00 |
| ELAmS_VNM Total | 0.47 | 0.94 | 3.85 | 0.00 | 4.57 | 4.88 | 0.00 | 1.05 | 2.45 | 0.92 | 0.00 |

Appendix G: Interaction breakdowns

Appendix G: Table 1 - Total occurrences of interaction breakdowns over the sessions

| Annotation | Total_S1 | Total_S2 | Total_S3 | Total_S4 | Total_S5 | Total_S6 |
|-------------|----------|----------|----------|----------|----------|----------|
| ECB500_TI | 12 | 9 | 8 | 5 | 6 | 5 |
| ECB502_SI | 17 | 16 | 16 | 20 | 7 | 9 |
| ECB504_TP | 13 | 3 | 19 | 11 | 15 | 2 |
| ECB506_SSO | 5 | 2 | 1 | 3 | 10 | 0 |
| ECB508_LTT | 23 | 17 | 21 | 11 | 7 | 18 |
| ECB512_TUDI | 1 | 0 | 2 | 2 | 1 | 1 |
| ECB514_TTT | 3 | 5 | 1 | 10 | 5 | 0 |

Appendix G: Table 2 - Total occurrences of interaction breakdowns per session for the 4 triads

| Annotation | Adele_S1 | Adele_S2 | Adele_S3 | Adele_S4 | Adele_S5 | Adele_S6 |
|-------------|----------|----------|----------|----------|----------|----------|
| ECB500_TI | 8 | 5 | 4 | 1 | 5 | 3 |
| ECB502_SI | 7 | 6 | 1 | 4 | 2 | 3 |
| ECB504_TP | 3 | 2 | 3 | 1 | 3 | 1 |
| ECB506_SSO | 2 | | | 2 | 5 | |
| ECB508_LTT | 6 | 4 | 8 | 4 | 2 | 5 |
| ECB512_TUDI | 1 | | | | | |
| ECB514_TTT | | | | | | |

| Annotation | Emilie_S1 | Emilie_S2 | Emilie_S3 | Emilie_S4 | Emilie_S5 | Emilie_S6 |
|-------------|-----------|-----------|-----------|-----------|-----------|-----------|
| ECB500_TI | 1 | | | 2 | | |
| ECB502_SI | 5 | 5 | 4 | 9 | 4 | 6 |
| ECB504_TP | 3 | | 2 | 3 | 2 | 1 |
| ECB506_SSO | | 1 | 1 | | 4 | |
| ECB508_LTT | 3 | 11 | 6 | 4 | 4 | 6 |
| ECB512_TUDI | | | 1 | 1 | | 1 |
| ECB514_TTT | 3 | 5 | 1 | 8 | 2 | |

| Annotation | Melissa_S1 | Melissa_S2 | Melissa_S3 | Melissa_S4 | Melissa_S5 | Melissa_S6 |
|-------------|------------|------------|------------|------------|------------|------------|
| ECB500_TI | 1 | 3 | | 1 | 1 | 2 |
| ECB502_SI | 3 | 2 | | 2 | | |
| ECB504_TP | 2 | | 5 | 4 | 10 | |
| ECB506_SSO | | 1 | | 1 | | |
| ECB508_LTT | 5 | 1 | | 2 | 1 | 7 |
| ECB512_TUDI | | | | | | |
| ECB514_TTT | | | | 2 | 1 | |

| Annotation | Samia_S1 | Samia_S2 | Samia_S3 | Samia_S4 | Samia_S5 |
|-------------|----------|----------|----------|----------|----------|
| ECB500_TI | 2 | 1 | 4 | 1 | |
| ECB502_SI | 2 | 3 | 11 | 5 | 1 |
| ECB504_TP | 5 | 1 | 9 | 3 | |
| ECB506_SSO | 3 | | | | 1 |
| ECB508_LTT | 9 | 1 | 7 | 1 | |
| ECB512_TUDI | | | 1 | 1 | 1 |
| ECB514_TTT | | | | | 2 |

Appendix I: Online interaction data analysis using Atlas.ti

| | | | | | | | |
|---|---|---|-----|---|--------------------|---|-----------------------|
| ◆ | ● | Tech_multimodal_affordance_Corrective_FB_asynchronous_bilan_tutor_initiated | 26 | 0 | Multimodal_acti... | 1 | Aparajita Plissonneau |
| ◆ | ● | Tech_multimodal_affordance_FB_tutor_solicited_student_FB | 13 | 0 | Multimodal_acti... | 1 | Aparajita Plissonneau |
| ◆ | ● | Tech_multimodal_affordance_flipped_approach_asynchronous | 5 | 0 | Multimodal_acti... | 1 | Aparajita Plissonneau |
| ◆ | ● | Tech_multimodal_affordance_image_video_onscreen_trigger_student_production_comprehension_tutor_initiated | 13 | 0 | Multimodal_acti... | 1 | Aparajita Plissonneau |
| ◆ | ● | Tech_multimodal_affordance_NoM_displays_questions/keywords_onscreen_tutor_initiated | 25 | 0 | Multimodal_acti... | 1 | Aparajita Plissonneau |
| ◆ | ● | Tech_multimodal_affordance_NoM_FoF_student_initiated | 36 | 0 | Multimodal_acti... | 1 | Aparajita Plissonneau |
| ◆ | ● | Tech_multimodal_affordance_NoM_FoF_tutor_initiated | 115 | 0 | Multimodal_acti... | 1 | Aparajita Plissonneau |
| ◆ | ● | Tech_multimodal_affordance_NoM_inter-student_interaction_student_initiated | 2 | 0 | Multimodal_acti... | 1 | Aparajita Plissonneau |
| ◆ | ● | Tech_multimodal_affordance_NoM_inter-student_interaction_tutor_initiated | 19 | 0 | Multimodal_acti... | 1 | Aparajita Plissonneau |
| ◆ | ● | Tech_multimodal_affordance_NoM_Intercultural_student_specialist_student_initiated | 22 | 0 | Multimodal_acti... | 1 | Aparajita Plissonneau |
| ◆ | ● | Tech_multimodal_affordance_NoM_Intercultural_student_specialist_tutor_initiated | 39 | 0 | Multimodal_acti... | 1 | Aparajita Plissonneau |
| ◆ | ● | Tech_multimodal_affordance_NoM_Intercultural_tutor_specialist_student_initiated | 12 | 0 | Multimodal_acti... | 1 | Aparajita Plissonneau |
| ◆ | ● | Tech_multimodal_affordance_NoM_Intercultural_tutor_specialist_tutor_initiated | 41 | 0 | Multimodal_acti... | 1 | Aparajita Plissonneau |
| ◆ | ● | Tech_multimodal_affordance_Overcome_Tech_Breakdown_student_initiated | 27 | 0 | Multimodal_acti... | 1 | Aparajita Plissonneau |
| ◆ | ● | Tech_multimodal_affordance_Overcome_Tech_Breakdown_tutor_initiated | 32 | 0 | Multimodal_acti... | 1 | Aparajita Plissonneau |
| ◆ | ● | Tech_multimodal_affordance_potential_uptake_student | 35 | 0 | Multimodal_acti... | 1 | Aparajita Plissonneau |
| ◆ | ● | Tech_multimodal_affordance_Social_Banter&Talk_student_initiated | 7 | 0 | Multimodal_acti... | 1 | Aparajita Plissonneau |
| ◆ | ● | Tech_multimodal_affordance_Social_Banter&Talk_tutor_initiated | 28 | 0 | Multimodal_acti... | 1 | Aparajita Plissonneau |
| ◆ | ● | Tech_multimodal_affordance_student taking notes using Chat_proposed by Melissa but not taken up by students | 1 | 0 | Multimodal_acti... | 1 | Aparajita Plissonneau |
| ◆ | ● | Tech_multimodal_affordance_studentFB=remediate tech probs+more interviews+session5 food truck good as ma... | 2 | 0 | Multimodal_acti... | 1 | Aparajita Plissonneau |
| ◆ | ● | Tech_multimodal_affordance_tutor tries to understand student (+module) profile + needs | 16 | 0 | Multimodal_acti... | 1 | Aparajita Plissonneau |
| ◆ | ● | Tech_multimodal_affordance_tutor_sticks to the lesson plan | 4 | 0 | Multimodal_acti... | 1 | Aparajita Plissonneau |

Appendix J: ISMAEL post-project interview guides and questionnaires

Appendix J1: Guide for post-project interview of tutees

Guide d'entretien en auto-confrontation simple pour les apprenants dublinois

I/ Questions de recherche :

Comment les apprenants ont-ils compris les bilans des tuteurs ? (différence interculturelle / aspect socioaffectif ?)

Qu'est-ce qui leur paraît utile dans les bilans ?

Quels éléments des bilans ont été réinvestis dans les échanges ?

II/ Méthodologie utilisée :

Même méthode que pour les tuteurs : entretien en auto-confrontation simple (Yves Clot).

Leur laisser un temps de remémoration plus important. Choisir les mêmes bilans que ceux décrits par les tuteurs pour les étudiants ayant donné leur accord.

Faire un guide le plus proche possible que pour celui des tuteurs afin de parler des points abordés par ces derniers sous l'angle de la réception.

Peut-être serait-il bien d'avoir écouté les interviews des tuteurs avant de faire celles des apprenants pour savoir quels points nous voulons faire ressortir ?

| Points abordés | Questions potentielles pour faire un entretien semi-dirigé |
|---|---|
| Début de l'enregistrement | This interview for the project "Le français en première ligne" is now beginning. The date is ... and here, in Dublin City University, are ... It has already been agreed that this interview will be recorded. So, (firstname), the purpose of this interview is to gather valuable information on how you perceived the feedback you received from your French tutor. More specifically, we would like to find out to what extent this feedback was useful to you. |
| 1/ Compréhension des bilans et notamment des critères choisis par les tuteurs/des corrections faites. | 1/ Peux-tu me décrire ce que tu vois dans ce bilan ? Comment est-il organisé ? Comment l'as-tu compris ? Quelles sont les erreurs qui ont été corrigées ? Qu'est-ce que tu as compris ? Grâce à quoi ? Qu'est-ce qu'il te manquait pour comprendre ? |
| Understanding of the bilans and more specifically of the correction criteria that were chosen by the tutors | Can you describe what you see in this bilan, how is it organised, how did you understand it? What facilitated your understanding? What could you have used otherwise to understand? |
| 2/ Temps pour lire les bilans / jour/ stratégie. | 2/ Combien de fois par semaine regardais-tu tes bilans ? Quel jour les regardais-tu ? Combien de temps ? Que faisais-tu quand tu les regardais ? (répéter les mots / chercher une règle / revoir les passages dans le salon de rétrospection / noter sur un cahier / etc. ?) As-tu imprimé tes bilans ? |
| Time for reading the bilans/days/strategies | How frequently did you check your bilans? Any preferences about the days? How long? What was your strategy when reading the bilans: repeating words, searching for rules, going over passages in the salon de rétrospection, taking notes? |

Appendix J1: Guide for post-project interview of tutees (continued)

| | |
|---|---|
| | Did you print out any bilans?! |
| 3/ Moments critiques relevés / pertinents / ou non. Erreur vs faute?! | 3/ Les moments relevés / par ton professeur te semblent-ils importants? Est-ce des erreurs / points positifs? Connaissais-tu la règle pour ces erreurs? As-tu appris des choses nouvelles?! |
| Relevance of critical moments highlighted. Errors vs. mistakes?! | Do passages highlighted by your tutor seem important to you? Were they negative or positive feedback? Did you understand the grammatical rules for highlighted errors? Did you learn anything new?! |
| 4/ Perception des bilans: ce qui leur a semblé le plus ou moins utile / agréable / étonnant / etc.! | 4/ Qu'est-ce qui t'a paru le plus utile / moins utile dans les bilans? Est-ce qu'il y a quelque chose qui t'a particulièrement plu / étonné / choqué? Qu'as-tu trouvé d'agréable / désagréable? (pour quoi?)! |
| Bilan / perceptions: what appeared more or less useful / agreeable / shocking / etc.! | What seemed most useful / important in the bilan? Did something particularly strike you? What was pleasant / unpleasant, and why?! |
| 5/ Intérêt des canaux utilisés (blocs) d'après eux.! | 5/ A quoi ont servi les vidéos / texte / audio? Pour quelles raisons / moments étaient-ils utilisés? Qu'as-tu préféré?! |
| Purpose of channels used according to them! | How was the video / text / audio useful? What errors were they used for? What were your preferences?! |
| 6/ (Pb) pour lire les bilans. Intérêt d'un bilan individualisé d'après eux ou d'un bilan commun! | 6/ As-tu eu des problèmes pour voir / ou comprendre les bilans? Avais-tu un bilan pour toi ou un bilan pour deux? Était-ce utile d'après toi?! |
| Issues reading the bilans! Purpose of individualised or general bilans!! | Did you have any issues watching or understanding the bilans? In your opinion, were the bilans useful?! |
| 7/ Evolution perçue dans les bilans (ou pas).! (Normalement, certains tuteurs ont fait évoluer leur manière de construire les bilans à partir de la séance 3.)! | 7/ As-tu remarqué une évolution dans la manière dont ton prof a fait les bilans? Qu'est-ce qui a changé d'après toi?! |
| Progression of the bilans! | Et toi, après coup, aurais-tu changé quelque chose dans les bilans de ton professeur?! |
| 8/ Autres moyens de communication pour parler des bilans (Facebook, mails, etc.)! | Did you notice any changes in your teacher's approach concerning the bilans? If yes, which?! |
| Other means of communication for speaking! | Thinking back, would you have changed anything?! |
| | 8/ As-tu utilisé d'autres moyens pour communiquer avec ton prof à propos des séances / pb / erreurs / bilans?! |
| | Did you use any other means of communication with your teacher in general, and more specifically in relation to issues / errors / bilans?! |

| | |
|--|--|
| about the bilans | |
| [r_3]/[r_7] (questions sur les gestes / Âge) | <p>During the sessions, were you aware of your own webcam image?</p> <p>Relances : To what extent did you look at your own webcam image? How did you position yourself in relation to the webcam? Did you feel that the webcam enhanced or restricted communication in anyway?</p> <p>When were you looking at your tutor's webcam image? What were you looking at more specifically? What did the webcam image bring to the conversation with him/her? Did seeing your tutor sometimes bother you?</p> |

Appendix J2: Guide for post-project interview of tutors

Guide d'entretien et d'auto-confrontation à implémenter pour les apprentis enseignants et les enseignants

I/ Questions de recherche

Quels sont les choix opérés dans la sélection des moments critiques sur lesquels les tuteurs reviennent ?

Quels sont les classements effectués (les critères) pour faire les bilans ?

Quels sont les canaux utilisés en fonction des classements ?

Quel est l'objectif linguistique que les tuteurs attribuent aux bilans ? A quels besoins pour l'apprenant répondent-ils ?

Quel est l'écart entre le contenu annoncé des bilans et le contenu réel ?

II/ Méthodologie et outils pour la collecte des données

Demander une description minutieuse de l'activité réalisée pour arriver à cœur de l'activité elle-même... Démarche utilisée et propositions faites.

Cloates, Kaitao, Hernandez, Scheller, 2001. Entretien en autoconfrontation croisée: une méthode clinique de l'activité. *Education permanente*, 1146, pp. 17-25.

Vermersch, R., 2006. *Entretien d'explicitation en formation continue initiale*. Paris: ESF, 1^{ère} édition 1994.

Vermersch, R., 1997. *Pratiques de l'entretien d'explicitation*. Paris: ESF.

Kaufmann, A.-C., 2007. *L'entretien compréhensif*. Paris: Armand Colin.


| Points abordés | Questions potentielles pour faire un entretien semi-dirigé |
|---|---|
| 1/ Typologie bilan: classement ou pas ? | 1/ Comment as-tu construit ce bilan ? |
| ! | Qu'as-tu choisi comme critères ? |
| ! | ! Pour quoi travail choisir cette option ? (classement/canaux) |
| ! | Qu'avais-tu l'intention de faire dans ce bilan ? (montrer un bilan précis) |
| ! | Quel était ton objectif dans ce bilan ? ! |
| ! | Pourquoi as-tu choisi ces titres / ce classement ? ! |
| ! | Quel est le rapport entre les titres que tu utilises et le contenu de ton bilan ? ! |
| ! | ! |
| 2/ Temps pour faire les bilans / jour du post. | 2/ Combien de temps mettais-tu pour faire un bilan ? (min / max, moyenne) |
| ! | Quand les faisais-tu ? (juste la prés-la séance, plus tard dans la semaine) ? Pour quoi ? ! |
| ! | ! |
| 3/ Moments critiques relevés / marqueurs posés. | 3/ Peux-tu me décrire comment tu faisais pour relever les moments critiques (réussis/erreurs) à indiquer aux élèves ? ! |
| ! | Etait-ce les mêmes moments que ceux que tu avais marqués pendant l'interaction ? ! |
| ! | As-tu relevé d'autres moments que ceux marqués pendant l'interaction pour les bilans ? ! |
| ! | ! |

Appendix J2: Guide for post-project interview of tutors (continued)

| | |
|--|--|
| <p>!</p> <p>4/!Canaux utilisés (blocs)!</p> <p>!</p> <p>!</p> <p>!</p> <p>!</p> <p>5/!Pb!pour faire les bilans?! Un/!deux apprenants!</p> <p>!</p> <p>!</p> <p>!</p> <p>6/!Retour des apprenants dublinois sur bilans! Le plus/moins utile/sympa pour eux?! (aspect socioaffectif)!</p> <p>!</p> <p>!</p> <p>7/!Evolution/changement dans les bilans à postériori.!</p> <p>!</p> <p>!</p> <p>8/!autres supports pour bilans?! (Facebook, mails, etc.)!</p> | <p>!</p> <p>4/!Comment choisisais @u!les blocs à utiliser (audio, vidéo, texte, titre)?! (Montrer un bilan précis et le détailler)!</p> <p>Pourquoi utilises @u!le texte/audio/vidéo, ici?! (S'il n'utilise pas un canal ou seulement un type de canal, demander pourquoi)!</p> <p>!</p> <p>!</p> <p>5/!Peux @u!me donner un exemple de problème que tu as eu pour faire les bilans (si tu en as eu)!?! Un problème que tu as eu pour relever les choses à marquer?! Comment fais @u!avec deux apprenants?! !</p> <p>!</p> <p>!</p> <p>6/!Penses @u!que le bilan proposé ait atteint ton objectif?! Quels commentaires ont fait les étudiants sur les bilans en début de séance?! Penses @u!que les bilans ont été pris en compte par les étudiants?! A ton avis, quelle a été le bilan le plus utile à tes étudiants?! Pourquoi?! Qu'est ce @e! qui leur a le plus servi dans tes bilans d'après toi?! !</p> <p>!</p> <p>7/!Quelles différences existent @!les entre ton premier bilan et ton dernier bilan?! Ont @s! évolué?! A postériori, aurais @u! changé quelque chose dans ta manière de faire les bilans?! Comment aurais @u! fait?! !</p> <p>!</p> <p>8/!As @u! utilisé d'autres supports pour communiquer avec les élèves sur les bilans?! Lesquels?! Fréquence?! !</p> |
|--|--|

Appendix J3: Post-project questionnaire for MelissaTR

Projet Lyon-Dublin

| | |
|--|--|
| #1  | <p>COMPLETE</p> <p>Collector: Projet Lyon-Dublin (Web Link) Started: Thursday, January 09, 2014 5:44:10 AM Last Modified: Thursday, January 09, 2014 6:17:40 AM Time Spent: 00:33:30 IP Address: 134.214.188.161</p> |
|--|--|

PAGE 1

Q1: Quels types d'activités avez-vous conçues et élaborées pour votre séance de tutorat en ligne ?

Il s'agissait majoritairement d'activités d'expression orale, notamment des jeux de rôles. Il y avait aussi des activités de comparaison entre l'Irlande et la France, des activités de description, de récit ou encore d'argumentation.

Q2: Quels ont été les enjeux reliés à la préparation de cette séance et ses activités ?

Il fallait tout d'abord répondre aux attentes de Mme [t_1], mais aussi penser aux éléments (lexique, points grammaticaux, etc.) qui peuvent être utiles aux apprenants.

Q3: En quoi la plateforme VISU a-t-elle facilité et/ou freiné la préparation de votre séance et ses activités ?

J'ai trouvé cette plateforme plutôt bien conçue pour l'enseignement (excepté les points dont nous avons déjà parlé lors de la dernière séance) : il est possible d'inscrire nos consignes, des mots-clés, d'enregistrer des images et des vidéos, de modifier l'ordre des activités, etc. Tous ces outils sont très pratiques afin de préparer une séance.

Q4: Combien utile s'est avérée la session de "debriefing" (retour critique) en classe sur le contenu de votre séance et ses activités ?

J'ai trouvé cela très utile, car cela nous permet de parler de nos difficultés et de trouver ensemble des solutions éventuelles. Cela permet de se rendre compte que certains problèmes sont récurrents et que l'on n'est pas le seul à avoir rencontré cette difficulté. Toutefois, le "debriefing" était parfois un peu long et répétitif.

Q5: Cochez toutes les séances en ligne que vous avez animées.

| | |
|--|--|
| | 0 (Tester la technologie, premier contact), |
| | 1 (Les Français au travail), |
| | 3 (Se préparer pour son stage à Reims), |
| | 4 (Gestion de projet, de conflits - McDo), |
| | 5 (Mettre en place un projet, argumenter, convaincre - camion-resto) |
| | , |
| | 6 (L'entretien d'embauche - L'Oréal), |
| | Si vous n'avez pas animé toutes ces séances, dites pourquoi. |
| | La séance 2 n'a pas du tout fonctionné au niveau du matériel. |

1 / 3

Appendix J3: Post-project questionnaire for Melissa^{TR} (continued 1)

Projet Lyon-Dublin

Q6: Quels types d'activités ont le mieux fonctionné avec votre/vos étudiant/s et pourquoi ?

Les jeux de rôles, notamment celui de la dernière séance, car :

- les apprenants étaient plus à l'aise
- j'avais mieux explicité les consignes
- le matériel a parfaitement fonctionné.

Q7: Quels types d'activités ont le moins bien fonctionné avec votre/vos étudiant/s et pourquoi ?

Les séries de questions qui les incitaient à parler de leur expérience, de leurs compétences, de leurs vœux futurs, etc., car :

- les questions ne leur semblaient pas pertinentes, inutiles et répétitives
- une apprenante n'avait aucune expérience professionnelle, ni d'intérêt pour le business.

Q8: Avez-vous introduit d'autres types d'activités que celles prévues et si oui, lesquelles et pourquoi ?

Non. Cependant, j'en ai supprimé un certain nombre, car je savais que l'on n'aurait pas le temps de les faire toutes. Evidemment, j'ai modifié pratiquement toutes les activités proposées afin de les adapter à mes apprenantes.

Q9: En quoi la plateforme VISU a-t-elle facilité et/ou freiné l'animation de vos séances en ligne ?

VISU a facilité l'animation des séances grâce à ses fonctionnalités (mots-clés, messagerie instantanée, envoi de photos, etc).

Q10: Est-ce que cette expérience vous a permis de développer des compétences professionnelles (des savoir-faire) et si oui, de quels types ?

Le travail en équipe, le regard critique, la mise en commun de difficultés, l'adaptation des activités en fonction du public.

Q11: Est-ce que cette expérience vous a permis d'enrichir vos connaissances sur la didactique du FLE (des savoirs) et si oui, à propos de quoi ?

Découvrir de nouvelles méthodes d'enseignement, de nouveaux types d'activités.

PAGE 2

Q12: Informations personnelles (qui resteront confidentielles) :

| | |
|------------------------------|-----------|
| Nom de famille | [surname] |
| Prénom | [tt_7] |
| Date de naissance (jj/mm/aa) | 28/11/90 |

Q13: Formation (intitulés précis). Si vous avez plusieurs licences/masters, merci de tous les indiquer en les séparant par un slash /

| | |
|--------------|--|
| Baccalauréat | S |
| Licence(s) | LLCE allemand |
| Master(s) 1 | études germaniques - recherche |
| Master(s) 2 | études germaniques - parcours "métiers de l'enseignement" - préparation au CAPES |
| Autre(s) | C2i2e |

Appendix J3: Post-project questionnaire for Melissa_{TR} (continued 2)

Projet Lyon-Dublin

Q14: Au cours de votre cursus, combien d'années avez-vous étudié l'anglais ? 10

Q15: Dans quels contextes l'avez-vous appris ? collège, lycée, enseignement supérieur

Q16: A quelle fréquence utilisez-vous l'anglais dans les situations suivantes ?

| | |
|-------------------------------|-------------------|
| cadre personnel | occasionnellement |
| cadre professionnel | jamais |
| avec des natifs (anglophones) | jamais |
| avec des étrangers | jamais |

Q17: Avez-vous déjà fait un séjour dans un pays anglophone ? non

Q18: Quel est votre niveau d'anglais approximatif ? A2

Q19: Avant le master 2, avez-vous déjà eu une expérience d'enseignement en FLE (ou plusieurs) ? (stages, emplois, associations, cours particuliers, etc.) Si oui, précisez dans quel cadre (pays/nom de l'institution/durée/public) :

pas de réelle expérience

Q20: Pour ceux d'entre-vous ayant eu une expérience en FLE avant le M2, de quelle(s) manière(s) l'avez-vous enseigné ? *Respondent skipped this question*

Q21: Dans le cadre personnel, quels outils de communication utilisez-vous en général ?

| | |
|--|-------------------------------|
| mails | plusieurs fois par jour |
| forums de discussion | au moins une fois par mois |
| blogs | au moins une fois par mois |
| chats | au moins une fois par semaine |
| réseaux sociaux (Twitter, Facebook, etc.) | plusieurs fois par jour |
| appels vidéos (Skype, GoogleTalk, etc.) | jamais |
| Précisez les types de réseaux sociaux / Nom des outils de communication. | Facebook |

Appendix K: Examples of *bilans* prepared by tutors

Appendix K1: *Bilan* prepared by Adele_{TR} for Alannah_{TE} and

Catrioan_{TE} for Session 3 (coded on Atlas.ti)

Bilan sur la séance : (FIL1 [tt_1]) Se préparer pour un stage de [tt_1]

| Type de bloc | Comments |
|--------------|--|
| Titre | TOUTES LES BONNES CHOSES QUE VOUS DITES PARFAITEMENT BIEN |
| Vidéo | Ton explication [s_10] est sans fautes. Bravo! |
| Vidéo | C'est très bien [s_1], de t'entraîner à poser des questions à [s_10]. Bonne initiative. Bravo! |
| Vidéo | Pareil ici! C'est bien [s_10] que tu poses la question à [s_1]. Je pense qu'il serait bien dans les prochaines séances de cours, de vous posez des questions en français, toutes les 2, ça vous entraîne sur la forme interrogative :) Bravo les filles en tous cas. |
| Vidéo | C'est très bien!! Tu ne te souviens pas du mot en français, et tu ME LE fais comprendre, en m'expliquant la définition en français. Bravo. Cela montre une bonne maîtrise du français :D |
| Vidéo | "Je serais sur la bonne piste" :) c'est super! [s_10] tu connais cette expression française? Si non, [s_1] te l'expliquera mardi prochain ok? ;) |
| Vidéo | Vous êtes trop mignonnes! :) haha c'était drôle de vous voir parler dans votre salle de classe |
| Titre | DU VOCABULAIRE |
| Audio | "JE SUIS CÉLIBATAIRE" "JE SUIS MARIÉE" "JE SUIS EN COUPLE" "JE SUIS EN CONCUBINAGE" |

Appendix K1: *Bilan* prepared by Adele_{TR} for Alannah_{TE} and Catrioan_{TE} (continued 1)

| | |
|-------|--|
| Audio | Sur un Cv français, ou un document administratif en France, si on vous demande votre "situation", cela signifie "célibataire" ou "en couple" etc. |
| Audio | Dans une conversation banale, à l'oral, le GENRE aura le sens de "style". Par exemple "J'aime ce GENRE de vêtements" veut dire "j'aime ce STYLE de vêtements". Il est rare à l'oral d'utiliser GENRE, pour demander si vous êtes un homme ou une femme. c'est un mot conventionnel, c'est bien de le savoir. Mais vous ne l'utiliserez pas beaucoup. |
| Audio | Je vais "passer" un ENTRETIEN (interview en anglais) |
| Audio | Je suis STAGIAIRE. |
| Titre | PETIT POINT SUR LA CONSTRUCTION DES PHRASES |
| Titre | :) |
| Audio | "Elle ne fait partie des filles QUE j'ai corrigé." |
| Audio | "se laisser ... quelquechose" ça veut dire "s'autoriser, se donner le choix". Ici, on dira "pour mon stage, je me laisse le choix". |
| Titre | :D LA PRO-NON-CIA-TION |
| Titre | hihihi |
| Audio | J'ai UN cours de marketing |
| Audio | Je n'aime pas CE cours d'économie. |
| Audio | DANS mon cours, nous sommes nombreux. |

**Appendix K1: *Bilan* prepared by Adele_{TR} for Alannah_{TE} and Catriona_{TE}
(continued 2)**





| | |
|-------|--|
| Audio | LE COMMERCE INTERNATIONAL |
| Audio | "est-ce que TU TROUVES QUE c'est difficile? |
| Audio | LA FORMATION |
| Audio | LA SCOLARITÉ |
| Audio | LA LETTRE DE MOTIVATION |
| Audio | LA PRONONCIATION ;) |
| Audio | VOILÀ LES FILLES |

Appendix K2: *Bilan* prepared by MelissaTR for Anate for Session 5 (coded on Atlas.ti)

Bilan sur la séance : F1L7 ([tt_7]) Séance 5 : étude de marché & marketing
(argumenter/convaincre) de [tt_7]

| Type de bloc | Comments |
|--------------|---|
| Text | Tu as un excellent niveau en français, aussi bien à l'oral qu'à l'écrit. Voici tout de même quelques petites remarques, afin que tu progresses. :) |
| Titre | Vocabulaire |
| Text | végétarien : qui ne mange pas de viande végétalien : qui ne mange ni de viande, ni les denrées produites à partir des animaux (lait, oeufs, fromage, etc.) |
| Titre | Grammaire |
| Text | ne pas confondre le nom "le travail" (avec un "l" final) et le verbe travailler (avec "lle") : je travailLE, tu travailLES, il travailLE, etc. |
| Text | Attention à la conjugaison du verbe "devoir" et "faire" qui sont des verbes irréguliers et pas simples du tout... |

Appendix L: Post-session tutor debriefing coded on Atlas.ti (a short extract)

| | | | |
|---|-------|---|--|
| Nicolas | | (Rires) Vous avez de la chance ! | |
|  | 54'00 | C'est vrai, je suis vraiment à l'aise du Visu (passage inaudible). Donc voilà, même si on parle d'autres choses on rebondit toujours, on rigole même s'il y a des erreurs, on arrive à... C'est bien ! Par contre, je, ça s'est moins bien passé en termes, justement, d'apprentissage... J'ai pas eu l'impression d'amener quelque chose ! Hier, particulièrement, j'ai même pas posé de marqueurs, j'étais soucieuse des questions, des trucs, des, bon... Donc, ça s'est moins bien passé de mon côté... | 149:65 C'est vrai, je... |
| Nicolas | | Mais, comment ? Vous... Qu'est-ce que vous expliquez ? | |
|  | | Alors ! | |
| Nicolas | | Vous le disiez déjà tout à l'heure, vous avez commencé et j'aimerais bien qu'on aille au bout ! Parce que ça me paraît intéressant... | |
|  | 54'30 | Alors, j'ai l'impression qu'en fait, pour les prochaines séances, enfin j'ai l'impression qu'on les emmène pas dans ce qu'elles attendent, dans le vif du sujet de l'entreprise ! Donc, j'avais l'impression de tourner en rond sur des questions... Donc pas par rapport à votre séance mais par rapport au fait qu'on ait déjà beaucoup parlé, personnellement, les deux premières séances on a déjà beaucoup parlé avec les élèves ! On a abordé ces questions du travail : on a parlé du stage, « que font tes parents ?, qu'est-ce que tu veux faire ? » Et, donc hier, j'avais l'impression de rabâcher des choses... Même elles, j'avais l'impression qu'elles se disaient « Mais, elle radote quoi »... « Alors, oui, est-ce que vous avez fait des stages ? » Bon, en gros, si elles avaient pu dire « On t'a déjà dit »... | 149:66 Alors, j'ai l'impression qu'en f... Debriefing_affordance+_tutor ... Debriefing_contradiction20_3_... Debriefing_contradiction40_1_... |
| Nicolas | | Ben pourquoi vous avez ? Parce que vous aviez déjà posé la même question la semaine dernière ? | |
|  | 55'00 | Non ! Mais de manière détournée mais je veux dire, ça tourne... C'est pas forcément la question qui est la même, c'est le sujet qui n'avance pas ! J'ai l'impression que le sujet n'avance pas ! Qu'on arrive pas à leur parler ! Donc à un moment donné, j'ai pris le truc, j'ai dit « bon, la prochaine séance que les collègues préparent va être beaucoup plus ciblée sur ... » Et elles étaient là... Et je leur ai dit « bon, je vais... ». Elles sont en attente de CV, de lettres de motivation. Elles me parlaient que de ça « Oui, mais parce qu'on veut faire une lettre de motivation pour machin, nanana » Et donc, je leur disais « ok » donc je leur ai dit « Ben... Donc, c'est intéressant ». Je leur ai dit | 149:67 C'est pas forcément la question qui Debriefing_contradiction30_2_... |

Appendix M: Post-project tutee-interview coded on Atlas.ti (a short extract)

| Extrait mémoire MOVallee.pdf | | Entretien semi-dirigé de Angela | |
|--|-------|---|--------------------------------|
| Apprenti(s) enseignant(e) | | Samia | |
| Apprenants (binôme) | | Angela et Sean | |
| Bilan/bilançe commentés | | Séance 1 (15 octobre 2013) : "Le monde du travail en France" | |
| Bilan/bilançe commentés | | Séance 4 (19 novembre 2013) : "Gestion de projet" | |
| Conventions utilisées pour la transcription : | | | |
| quand un mot est coupé : mp- | | | |
| Néologismes : euh / hum (langage) euh | | | |
| mot inaudible (bruit) : | | | |
| son ou mot dont je ne suis pas sûr : (mot) | | | |
| action : (action) | | | |
| mots étrangers : "mou" | | | |
| Liste des onomatopées, interjections et autres particularités (liste non exhaustive) | | | |
| ah / aïe / bah / ben / ah / enfin euh / guagnagna / hein / hum (recinement de gorge) / hm hm | | | |
| mou / mouss / m / m / ah / oh là là / ouais / ouille / ouais, ouh là / p / pf, pf / tak (bruit d'ouverture de bouche) / wouf, waf / ya | | | |
| ANGELA | | | |
| Sylvie | 00:08 | Ok, donc cet interview maintenant commence, le projet s'appelle Le Français en Première Ligne, aujourd'hui nous sommes le... j'ai besoin d'aide pour la date... le sept déjà ? Ok, le sept mais, nous sommes à DCU Dublin City University, les personnes présentes sont Julie Vidal, Angela, et moi-même Sylvie Toubery. Donc le but de cet entretien c'est juste de pouvoir récupérer des informations en ce qui concerne comment tu as vécu les corrections que la tutrice t'a donné, et surtout savoir si c'était intéressant et utile pour ton développement personnel. Donc Julie, tu peux commencer avec la première question ? | |
| Julie | | Oui, alors là-dessus c'est, si tu peux nous commenter deux bilans, donc c'est le bilan 1 et le bilan 4 que Samia a fait, et nous donner, nous le décris et nous expliquer ce que tu as compris, ce que tu as aimé, ce que tu aurais aimé avoir d'autre, dans les bilans. Je te laisse regarder d'abord, prends cinq minutes, tranquille. Ça c'est le bilan numéro 1, je te laisse regarder. | Post_int_students_aim |
| Julie | 02:16 | C'est bon ? | |
| Angela | | Oui, c'est bon. | |
| Sylvie | | Juste avant de commencer, j'ai oublié de préciser pour l'enregistrement que nous étions toutes d'accord que cet enregistrement soit... enfin que l'interview soit enregistré. Donc voilà, c'est bon maintenant c'est ok ? | |
| Angela | | Hum, j'ai bien qu'il y a une section pour les petites erreurs, et des points positifs, parce que je suis vraiment content que Samia n'a rien écrit sur ce qu'on a dit, le thème de la conversation ? Mais des erreurs de langue, et je trouve que c'est bien très bien qu'elle a écrit ce que j'ai dit et ce qu'il faut dire, parce que si on me donne seulement "on dit gagner de l'argent", c'est vraiment difficile pour moi de réfléchir ce que j'aurais dit ou je pourrais, non, ce que j'aurais dit, oui. Et oui, c'est toujours bien d'avoir des points positifs aussi et, oui. | Post_int_Ana+Angela+Catrion... |
| Julie | 03:32 | Et là par exemple, tu as compris, tu as utilisé l'expression "gagner de l'argent" mais en français on dirait... pardon non "gagner d'argent", mais en français on dirait plutôt "gagner de l'argent". | |
| Angela | | Oui, c'est parce que l'argent est pas... on peut pas compter l'argent ? Alors il faut dire "de" et utiliser l'article aussi. | |
| Julie | | Tu connaissais la règle ? | |
| Angela | | Je connaissais la règle, mais quand j'ai vu ça j'ai dit aller voir dans le livre, encore une fois, pour pas oublier. | |
| Sylvie | | Mais est-ce que tu aurais préféré que Samia remarque un petit récapitulatif pour la règle, ou... en même temps que ton erreur ? Est-ce que tu aurais aimé voir la règle avec ton erreur ou tu as préféré aller chercher par toi-même la règle ? | |
| 1 | | | |
| Angela | 04:34 | Euh... je crois que pour moi c'est je me souviens, c'est meilleur de se souvenir si je viens moi-même aller rechercher la règle. Mais je crois qu'il y a aussi beaucoup d'étudiants qui ne vont pas rechercher la règle, et si on ne sait pas la règle, c'est dommage. (rires) Alors... | |
| Julie | | Ce dépend ? | |
| Angela | | Oui, ça dépend, mais je crois ça serait meilleur de mettre la règle aussi. | |
| Julie | | Par exemple pour... tu as dit "ça vraiment dépend" mais en français on dirait "ça dépend vraiment". Est-ce que tu as compris l'erreur et la correction ? | |
| Angela | | Je crois que l'erreur est que l'adverbe est après, à la fin du phrase. | |
| Julie | 05:28 | Et ça tu... Tu l'as cherché ? | |
| Angela | | Euh... non, j'ai pas cherché, mais comme je le vois dedans, je me souviens que l'adverbe est pas au début mais, à la fin ? | |
| Julie | | Alors, tu utilises l'expression "je n'ai aucune idée", il faudrait dire "je n'ai aucune idée". Est-ce que c'est clair pour toi ? Ou qu'est-ce que tu comprends là-dedans. | |
| Angela | | Là-dedans je comprends que c'est une expression fixe en français, qu'on ne dit, que "j'ai aucune idée" sur tous les choses, mais c'est seulement sur cet aspect que "je n'ai aucune idée" (rires). | |
| Julie | | Et comment ça... et ces points par exemple individuels, les petites erreurs, quand tu revoisais ton bilan comment tu faisais pour... comment ça se passait ? | |
| Angela | | Moi j'ai... cahier ? Cahier de français avec quelque vocabulaire, et je l'ai noté dedans aussi, et je crois que c'est toujours utile de le regarder avant les leçons, et de se souvenir des erreurs qu'on a fait, et ce qu'on ne veut pas faire. | |
| Julie | 06:34 | Et qu'est-ce que tu notes exactement ? Tout ? | |
| Angela | | J'ai noté que c'est "je n'ai aucune idée" et pas "j'ai aucune idée". | |